GENERAL NOTES

ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS SET FORTH IN THE NEW JERSEY UNIFORM CONSTRUCTION CODE (NJAC 5:23) AND ALL APPLICABLE MODEL BUILDING SUBCODES, INCLUDING BUT NOT LIMITED TO:

NEW JERSEY INTERNATIONAL BUILDING CODE, 2021 ICC/ANSI 117.1, 2021 ACCESSIBLE AND USABLE BUILDING AND FACILITIES INTERNATIONAL MECHANICAL CODE, 2021 NATIONAL ELECTRICAL CODE, 2017

NATIONAL STANDARD PLUMBING CODE, 2021

ALL WORK SHALL BE PERFORMED DURING NORMAL WORK HOURS, AS SET FORTH IN THE MUNICIPAL ORDINANCE WHICH HOLDS JURISDICTION OVER THE AREA OF WORK, UNLESS SPECIFICALLY PROVIDED OTHERWISE IN THESE CONTRACT DOCUMENTS, SPECIFICATIONS, OR OTHER WRITTEN AGREEMENTS BETWEEN OWNER AND CONTRACTOR.

THE CONTRACTOR SHALL VISIT THE SITE AND VERIFY ALL DIMENSIONS PRIOR TO COMMENCEMENT OF WORK AND NOTIFY THE ARCHITECT IMMEDIATELY OF ANY DISCREPANCIES.

THE CONTRACTOR SHALL MAINTAIN A CLEAN WORK-SITE AND PROTECT ALL BUILDING MATERIALS FROM THE ELEMENTS AND FROM ON-GOING CONSTRUCTION WORK AS NECESSARY TO MAINTAIN THE MATERIAL INTEGRITY.

THE AREA OF WORK SHALL BE SEPARATED FROM ALL OTHER OCCUPIED AREAS BY MINIMUM 6 MIL POLY ETHYLENE DUST CURTAIN. WHERE AREAS OF WORK ARE ADJACENT TO PUBLIC AREAS TO BE OCCUPIED AND CONSTRUCTION PARTITIONS ARE NOT SPECIFIED IN OTHER AREAS OF THESE CONSTRUCTION DOCUMENTS AND SPECIFICATIONS, THE AREA OF WORK SHALL BE SEPARATED BY A UL DESIGN U465 ONE HOUR CONSTRUCTION PARTITION FROM FLOOR TO CEILING ABOVE THE MIN. 5/8" G.W.B. EACH SIDE OF 3-5/8" METAL STUD FRAMING AT 16" O.C. AND 3" S.A.F.B. IN THE STUD CAVITY. ALL CONSTRUCTION PARTITION REQUIREMENTS SHALL COMPLY WITH NJAC 5:23-9.6(C) IN ALL CASES.

WHEN NOT SPECIFICALLY INDICATED IN THE CONTRACT DOCUMENTS, ALL SITE WORK SHALL COMPLY WITH THE REQUIREMENTS OF THE MUNICIPALITY HAVING JURISDICTION OVER THE PROJECT AREA AND ICC/ANSI 117.1, 2021

ALL LANDSCAPING SHALL BE INSTALLED AT SUCH TIME SO AS TO BE IN HEALTHY CONDITION AT THE TIME OF SUBSTANTIAL COMPLETION. ANY LANDSCAPE MATERIALS NOT IN SUCH CONDITION AT THE TIME OF SUBSTANTIAL COMPLETION SHALL BE REPLACED BY THE CONTRACTOR AT NO COST TO THE OWNER. THE CONTRACTOR SHALL COORDINATE WITH THE OWNER, GROWING SEASON, AND CONSTRUCTION SCHEDULE IN SCHEDULING INSTALLATIONS AFTER SUBSTANTIAL COMPLETION.

ALL BEARING SOIL SHALL BE UNDISTURBED OR 100% COMPACTED SOIL TO ACCOMMODATE THE INSTALLATION OF FOOTINGS, FOUNDATION WALLS, PILINGS, ETC. WHEN NOT INDICATED OTHERWISE IN THESE CONTRACT DOCUMENTS AND SPECIFICATIONS VIA SOIL REPORT, BEARING CAPACITY OF THE SOIL IN THE AREA OF WORK SHALL BE CONSIDERED TO BE 3,000 PSI WITHOUT DETRIMENTAL SETTLEMENT. IN SUCH CASES, THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE TESTING TO VERIFY THIS CONDITION PRIOR TO COMMENCEMENT OF WORK.

FOOTINGS SHALL BE LOCATED A MINIMUM OF 30" BELOW GRADE, UNLESS OTHERWISE INDICATED IN THESE DOCUMENTS.

IN PERFORMING ANY EARTHWORK, ALL EXCAVATED AREAS SHALL BE PROVIDED WITH TEMPORARY SUPPORTS AND/OR SHARING TO PREVENT ANY COLLAPSE. EXCAVATED SOILS, FILL, ETC. SHALL BE STORED SO AS NOT TO EXCEED THE ANGLE OF REPOSE FOR EACH TYPE. ALL BEARING SOIL, WHEN EXCAVATED AND STORED SHALL BE PROPERLY PROTECTED FROM THE ELEMENTS UNTIL BACKFILLING.

BACKFILLING SHALL BE PERFORMED IN MAX. 6" LIFTS UNLESS OTHERWISE INDICATED IN THESE DOCUMENTS. EACH LIFT SHALL BE TAMPED PRIOR TO CONTINUING WORK.

ALL MISCELLANEOUS WOOD SHALL BE MIN. NO. 1 OR BETTER DOUGLASS FIR. WOOD NAILERS, BLOCKING, ETC. IN FOUNDATION CONSTRUCTION SHALL BE TREATED TO RESIST DECAY.

ALL CRAWL SPACES AND SLAB ON-GRAD CONDITIONS SHALL BE PROVIDED WITH 6 MIL. POLYETHYLENE VAPOR BARRIER FOR THE ENTIRE FOOTPRINT AND MIN. 24" WIDE 2" RIGID INSULATION AT THE ENTIRE PERIMETER OF THE BUILDING FOOTPRINT.

ALL CONCRETE TO BE PROVIDED SHALL BE MIN. 4,000 PSI IN 28 DAYS UNLESS INDICATED OTHERWISE IN THESE DOCUMENTS.

ALL CONCRETE MASONRY UNITS WHEN LOAD-BEARING SHALL CONFORM TO ASTM C34-84. IN NON-LOAD-BEARING APPLICATIONS MASONRY UNITS SHALL COMPLY WITH C56-81.

ALL DOORS AND WINDOWS AT EXTERIOR WALLS SHALL BE PROVIDED WITH ALUM. SILL FLASHING UNDER THE ENTIRE WIDTH OF THE OPENING. AT WINDOW AREAS, FLASHING SHALL HAVE UPTURNED EDGES WITH SOLDERED CORNERS AND PITCH TO THE EXTERIOR. ALL WINDOWS AND DOORS SHALL BE PROVIDED WITH SHIM SPACES AT THE PERIMETER TO ENSURE A PLUMB AND TRUE INSTALLATION.

ALL GLAZING IN HAZARDOUS AREAS AS DEFINED IN 2406.2 SHALL BE TEMPERED GLAZED SAFETY GLASS AND SHALL BE IMPACT-RESISTANT GLAZED OPENINGS.

ALL GYPSUM WALL BOARD TO BE 5/8" FIRECODE 'C' UNLESS INDICATED OTHERWISE IN THE DOCUMENTS.

ALL BATHROOM AND KITCHEN AREAS SHALL BE PROVIDED WITH WATER-RESISTANT G.W.B., TYPICAL. ALL TILE AREAS SHALL BE PROVIDED WITH CEMENTITIOUS BOARD BACK-UP UNLESS INDICATED OTHERWISE.

IN ALL PAINTED WALL AREAS, G.W.B. SHALL BE TAPED AND SPACKLED TO MIN. LEVEL 4 FINISH.

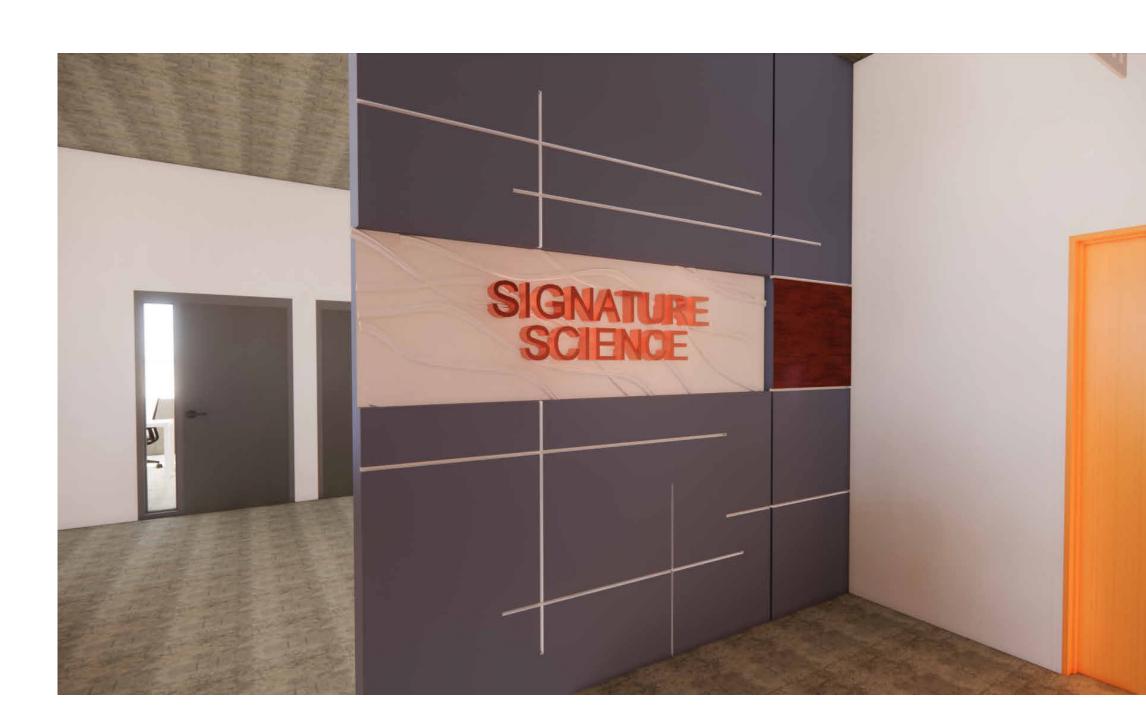
IN ALL WALL-COVERED AREAS, G.W.B. SHALL BE TAPED AND SPACKLED TO MIN. LEVEL 4. FINISH.

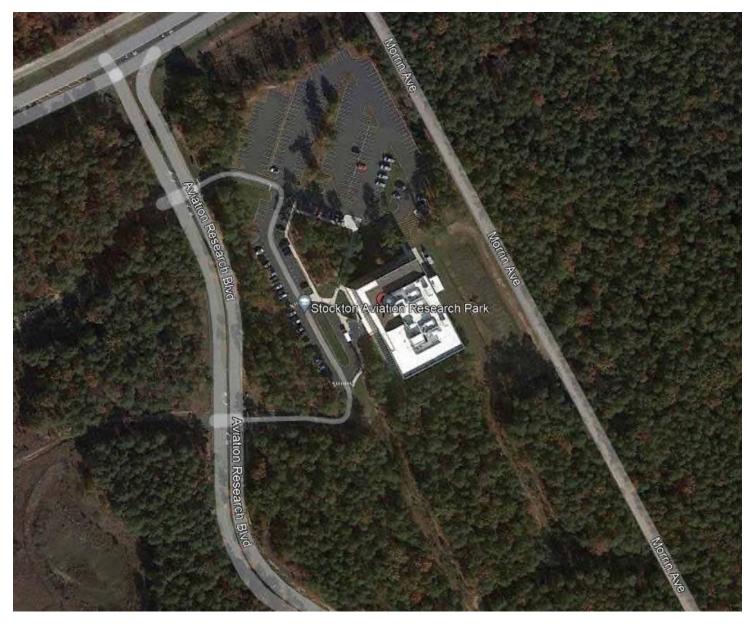
SHOP DRAWINGS SHALL BE REQUIRED FOR ALL MILLWORK.

ALL THRESHOLDS AND OTHER FLOORING TRANSITIONS SHALL COMPLY WITH THE FLOOR LEVEL CHANGES CONSTITUTED IN ICC/ANSI 117.1, 2021.

ALL SPECIALTIES, ACCESSORIES, OR OTHER WALL-MOUNTED EQUIPMENT, FIXTURES, ETC. SHALL BE PROVIDED WITH NON-COMBUSTIBLE BLOCKING IN THE WALL CAVITY FOR SUPPORT UNLESS SPECIFICALLY NOTED OTHERWISE.

ALL ELEVATOR PITS (WHERE APPLICABLE) SHALL BE PROVIDED WITH SUMP PUMP CONNECTED TO THE BUILDING STORM WATER SYSTEM. THE PIT SHALL BE PROVIDE WITH A GALV. STEEL ACCESS LADDER MOUNTED IN AN OSHA COMPLIANT LOCATION WITH WORK LIGHT AND SWITCH ACCESSIBLE FROM THE POINT OF ENTRY. ALL ELEVATOR DOORS SHALL BE PROVIDED WITH STRUCTURAL STEEL SILL ANGLES AS REQUIRED BY THE MANUFACTURER.





AERIAL MAP

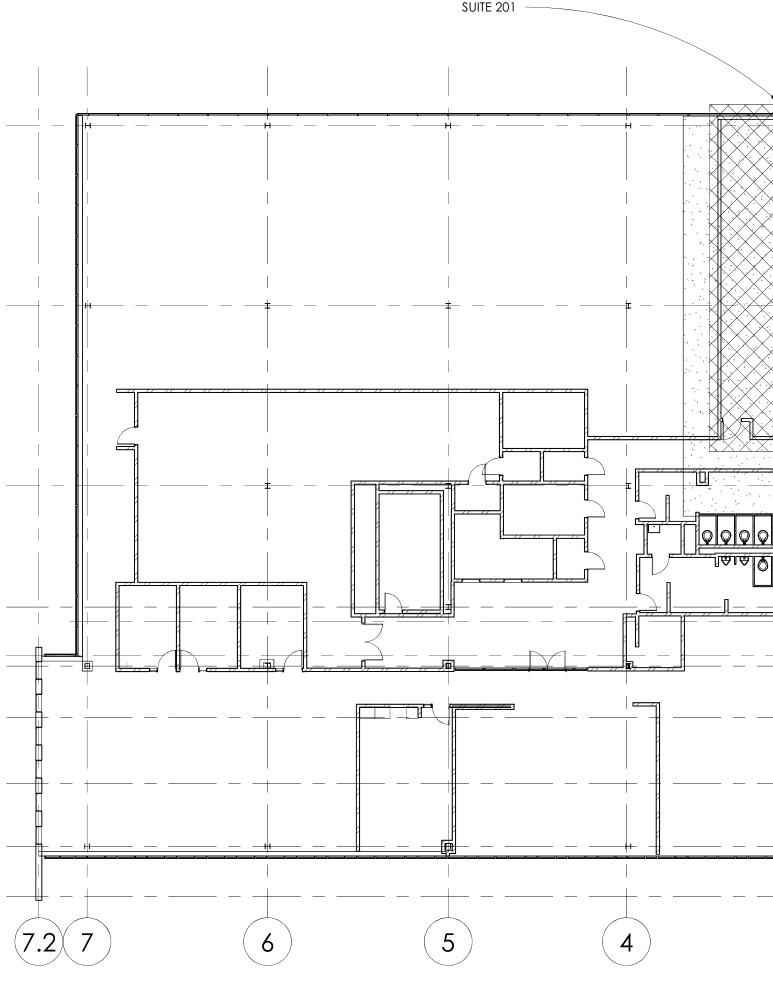


Use Group: Construction Occupant La SHEET NUMBER SK01 DET. G0.00 COV G1.00 LIFE

OWNER:

TENANT:

ARCHITECT:



PROJECT LOCATION





TENANT IMPROVEMENTS TO SIGNATURE SCIENCE

600 AVIATION RESEARCH BOULEVARD EGG HARBOR TOWNSHIP, NJ 08234

ATLANTIC COUNTY IMPROVEMENT AUTHORITY 600 AVIATION RESEARCH BLVD. EGG HARBOR TOWNSHIP, NJ 08234

SIGNATURE SCIENCE TEXAS

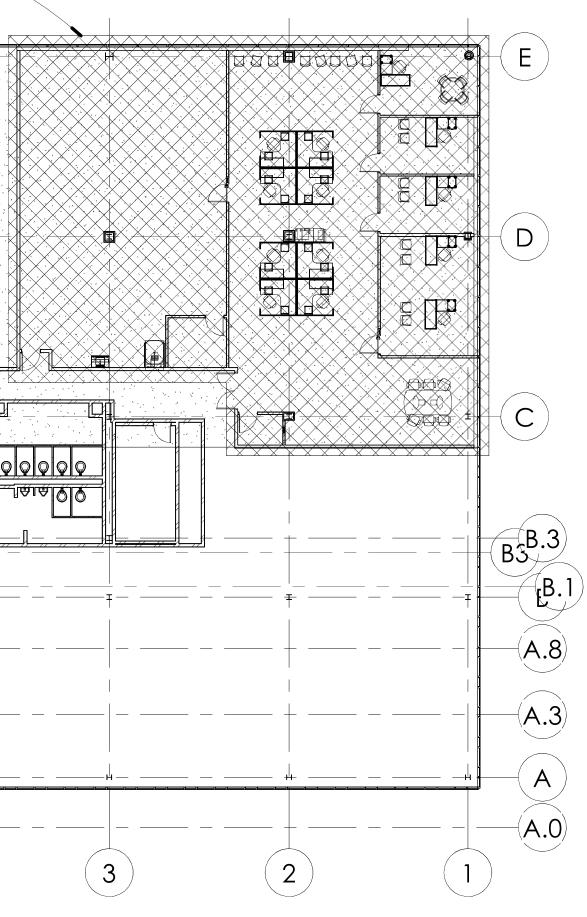
WILLIAM MCLEES ARCHITECTURE 5 MACARTHUR BOULEVARD SOMERS POINT, NJ 08244 CONTACT: WILLIAM MCLEES, AIA 609.927.0888

BUILDING CODE ANALYSIS

This work is governed by the New Jersey Uniform Construction Code, New Jersey Edition of the 2021 International Building Code and all other applicable subcodes as adopted therein. This work shall qualify as an **ALTERATION** under the requirements and definitions of the New Jersey U.C.C.

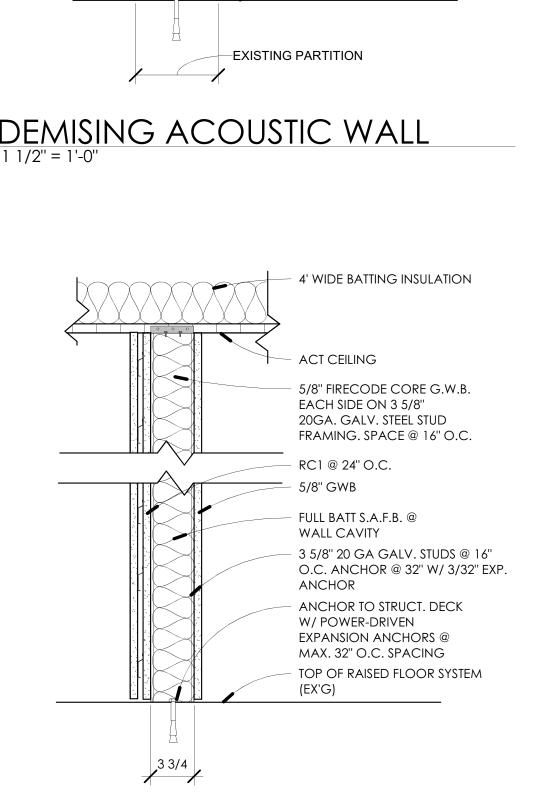
	Enclosed
Total Tenant Area:	4700 S.F.
Building Footprint:	22,909 S.F.
Use Group:	В
Construction Class:	ll B
Occupant Load:	32

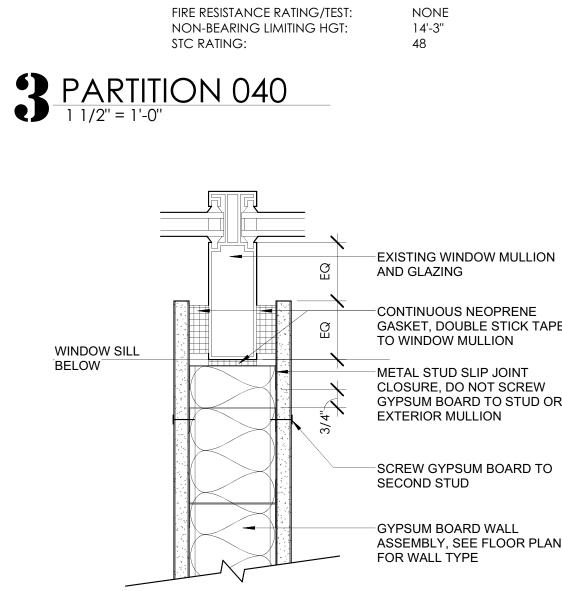
DRAWING LIST				
SHEET NUMBER	SHEET NAME	ISSUE DATE	CURRENT REVISION	REVISION DATE
SK01	DETAILS	09/21/23		
G0.00	COVER SHEET	8.16.23		
G1.00	LIFE SAFETY PLANS	8.16.23		
D1.00	DEMOLITION PLAN	8.16.23		
A1.00	FLOOR PLANS	8.16.23		
A1.02	REFLECTED CEILING PLAN	8.16.23		
A1.01	FURNITURE FIXTURE AND EQUIPMENT PLAN	8.16.23		
A2.00	INT. DETAIL ELEVATIONS	8.16.23		
A3.00	DOOR TYPES & FINISH SCHEDULE	8.16.23		





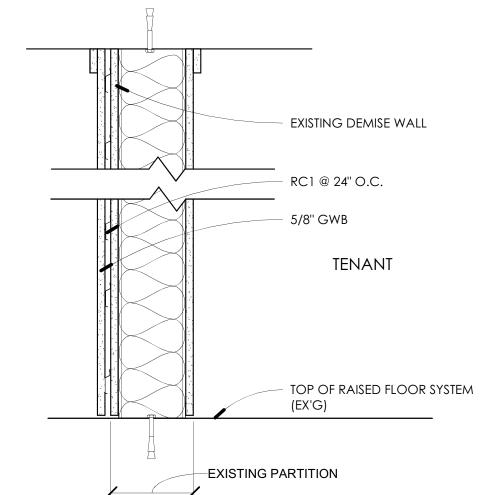


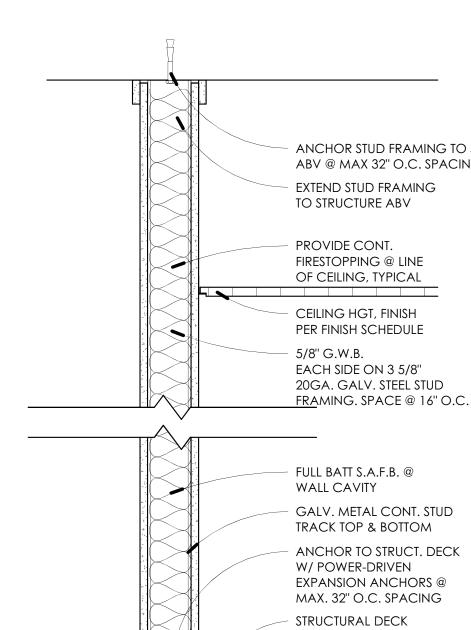




3 3/4

5 DEMISING ACOUSTIC WALL





2 PARTITION AT EXTERIOR MULLION 3'' = 1'-0''

GYPSUM BOARD WALL ASSEMBLY, SEE FLOOR PLAN FOR WALL TYPE

METAL STUD SLIP JOINT CLOSURE, DO NOT SCREW GYPSUM BOARD TO STUD OR EXTERIOR MULLION

-CONTINUOUS NEOPRENE GASKET, DOUBLE STICK TAPE TO WINDOW MULLION

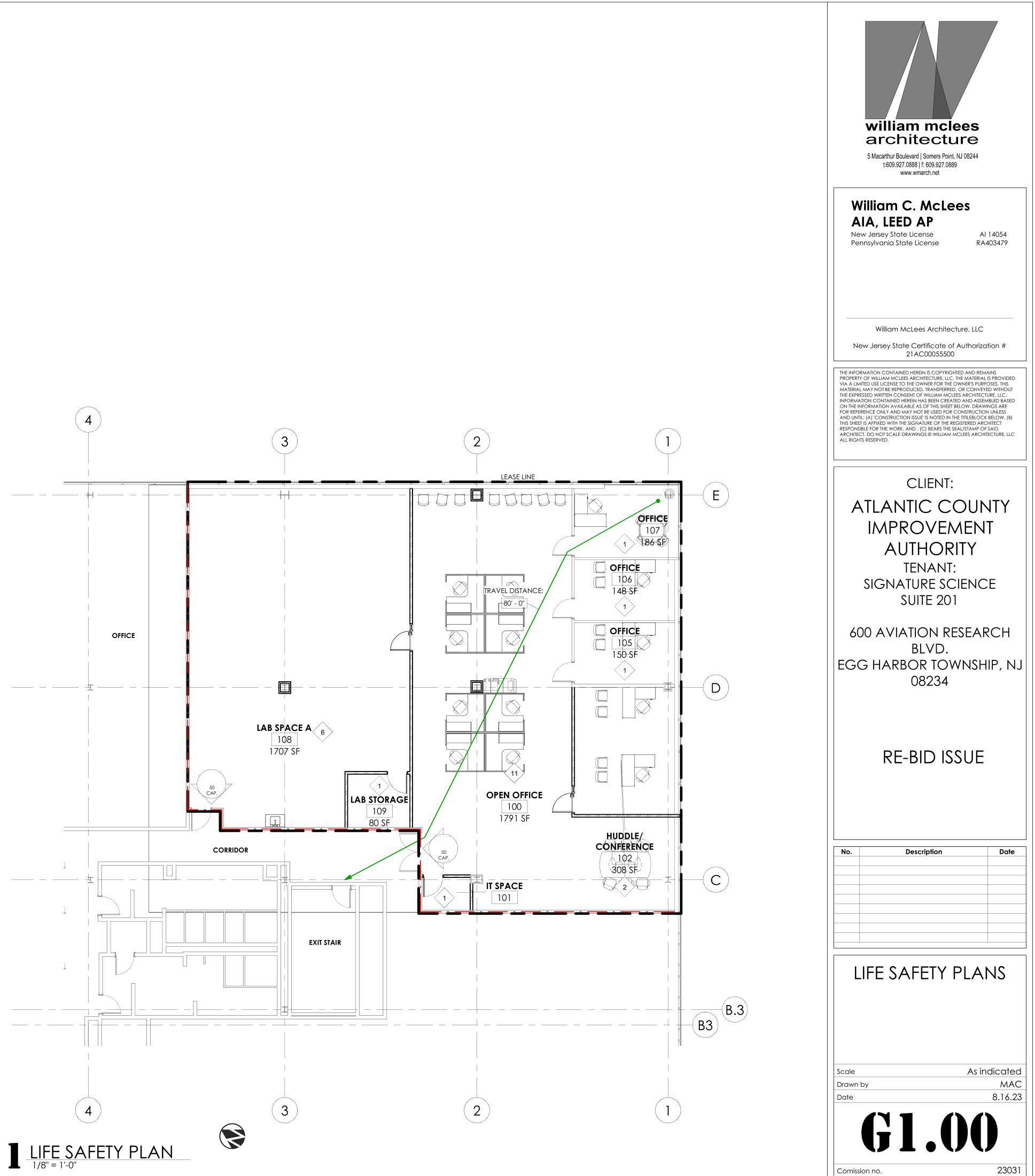
AND GLAZING

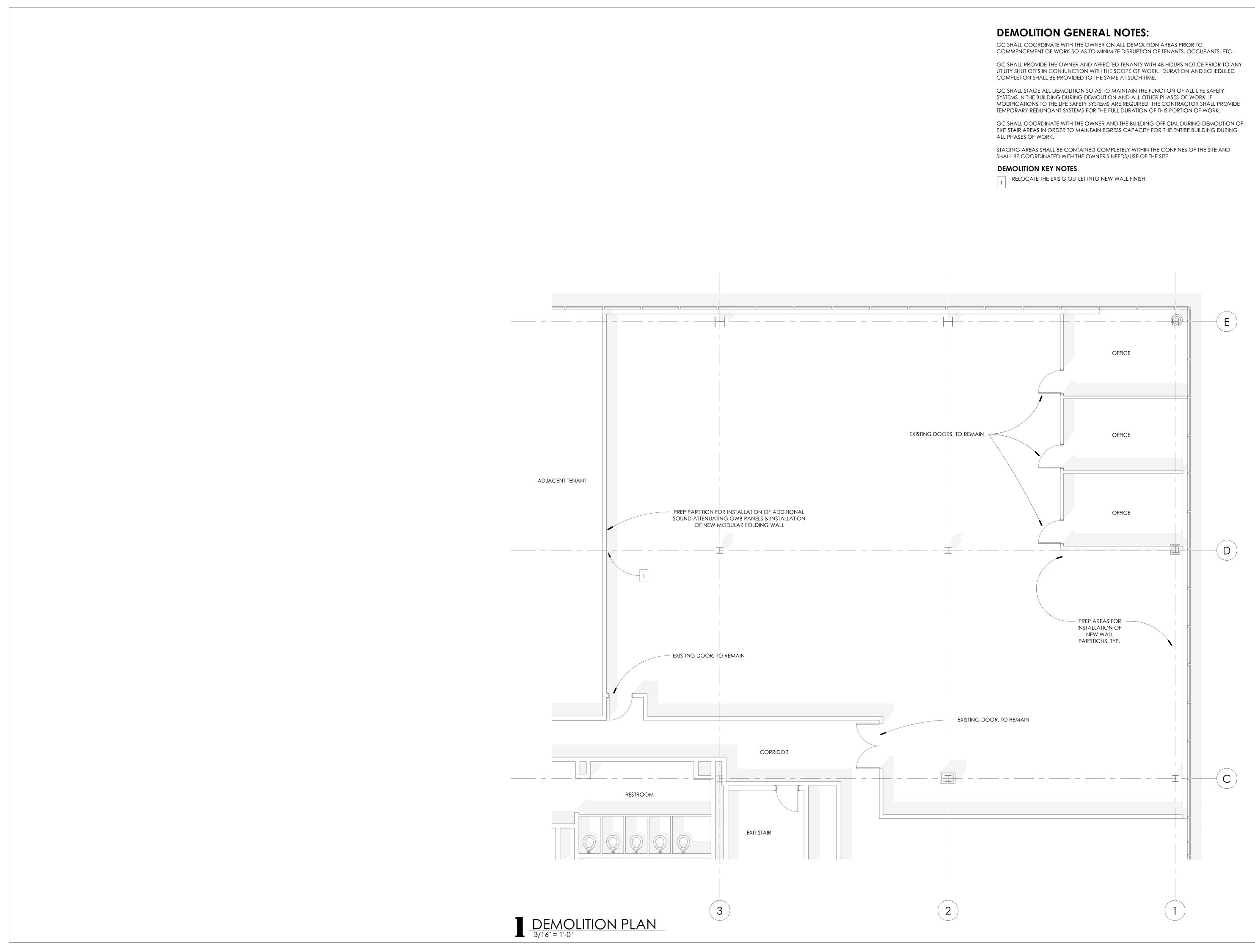
EXISTING WINDOW MULLION

NONE 14'-3" 48

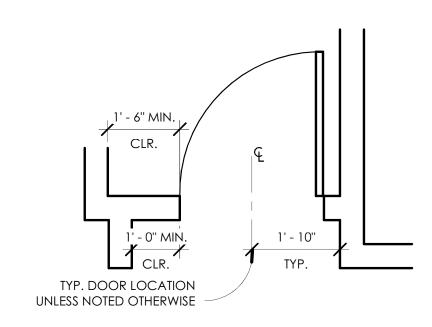
ANCHOR TO STRUCT. DECK (SEE STRUCT. DWGS)

ANCHOR STUD FRAMING TO STRUCTURE ABV @ MAX 32" O.C. SPACING



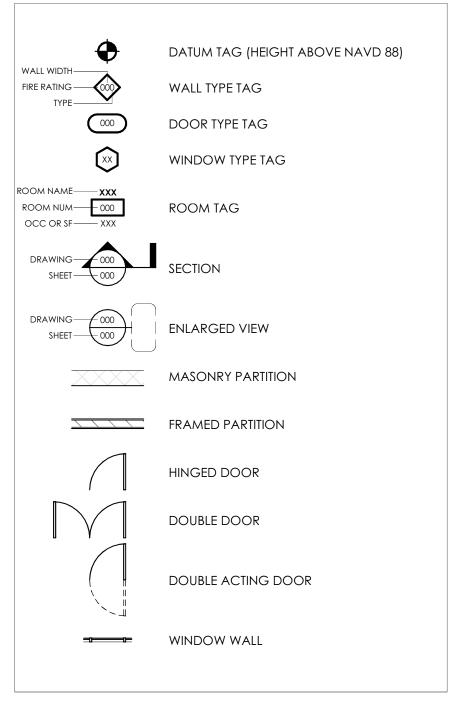


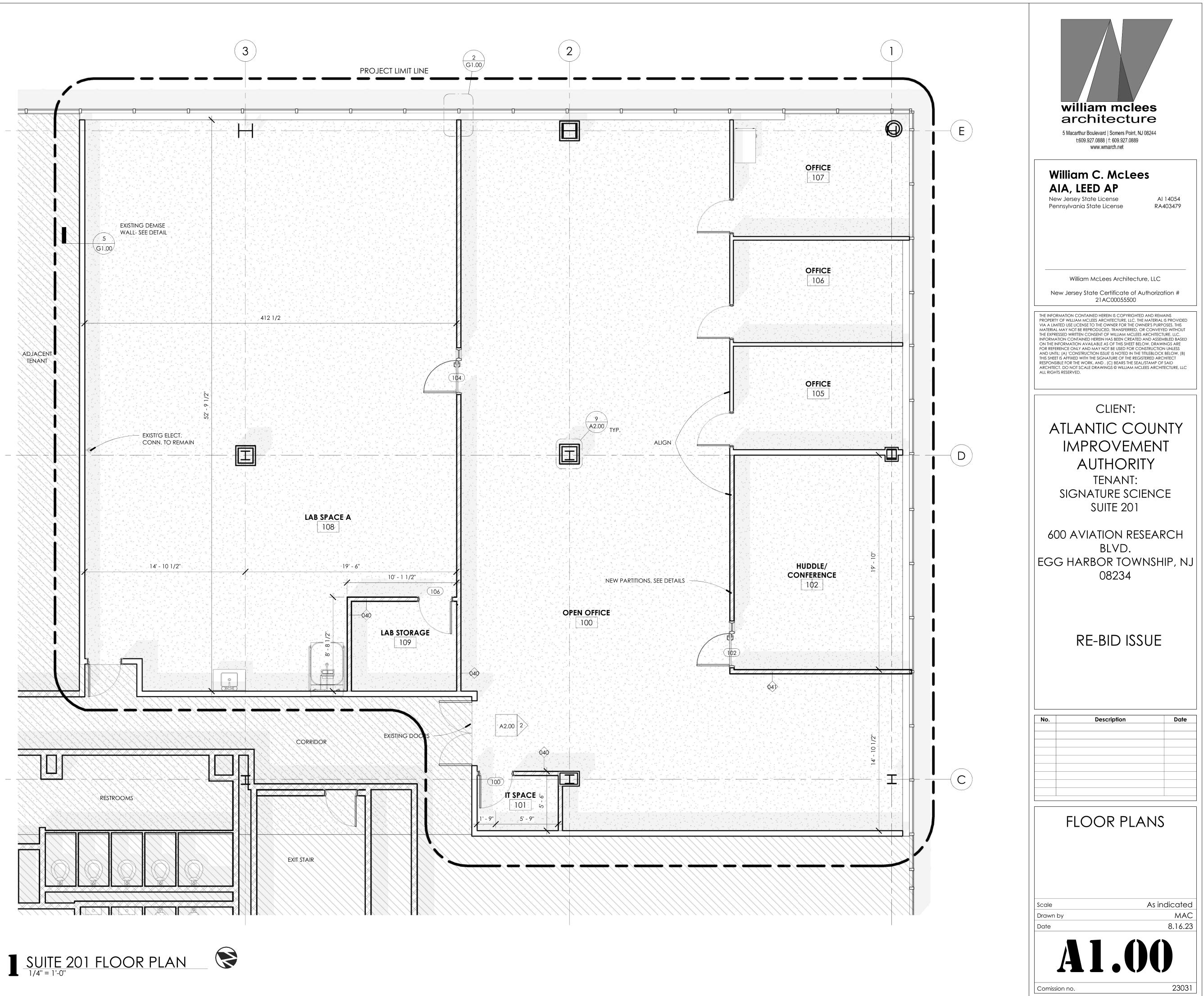


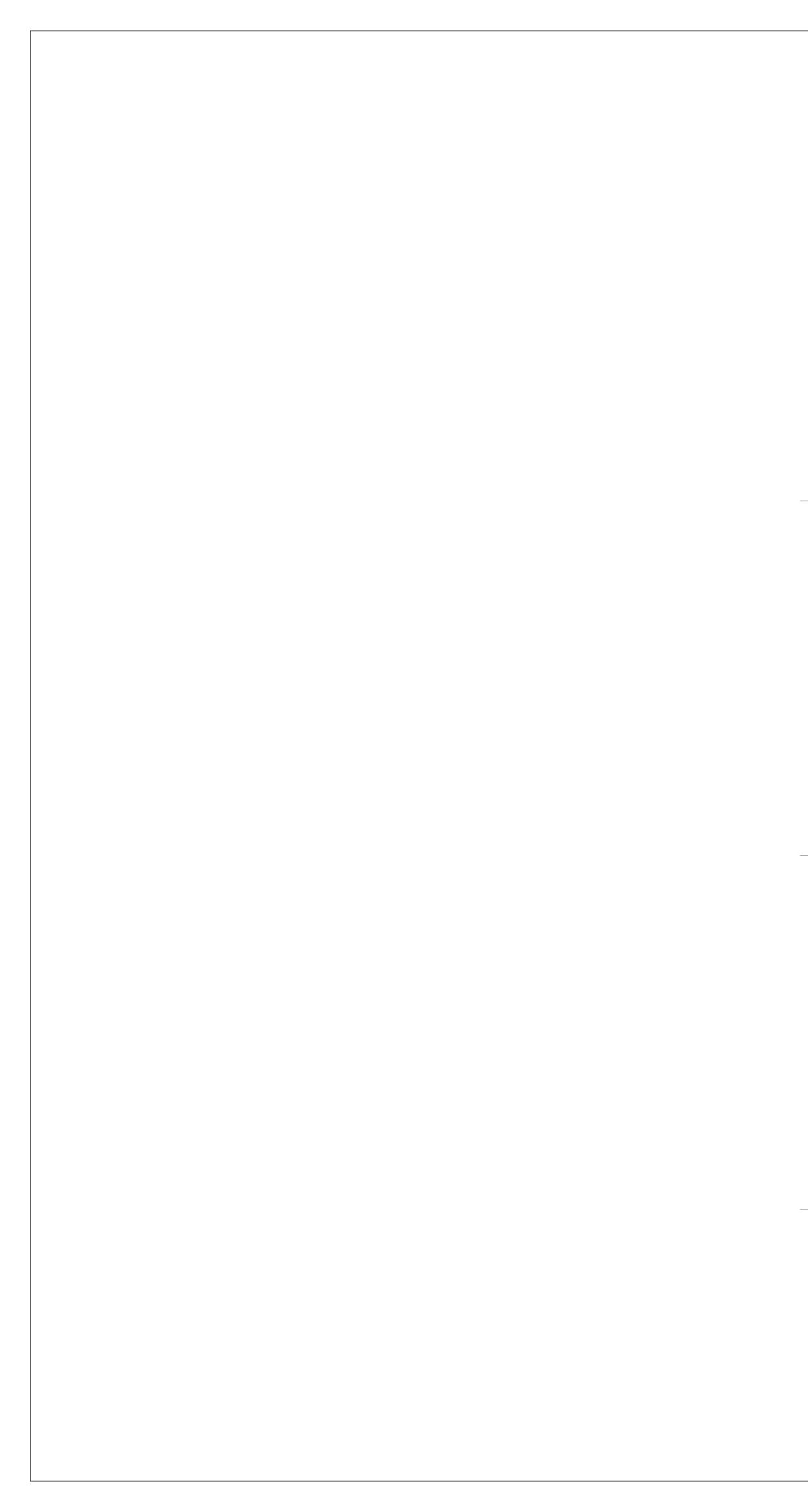




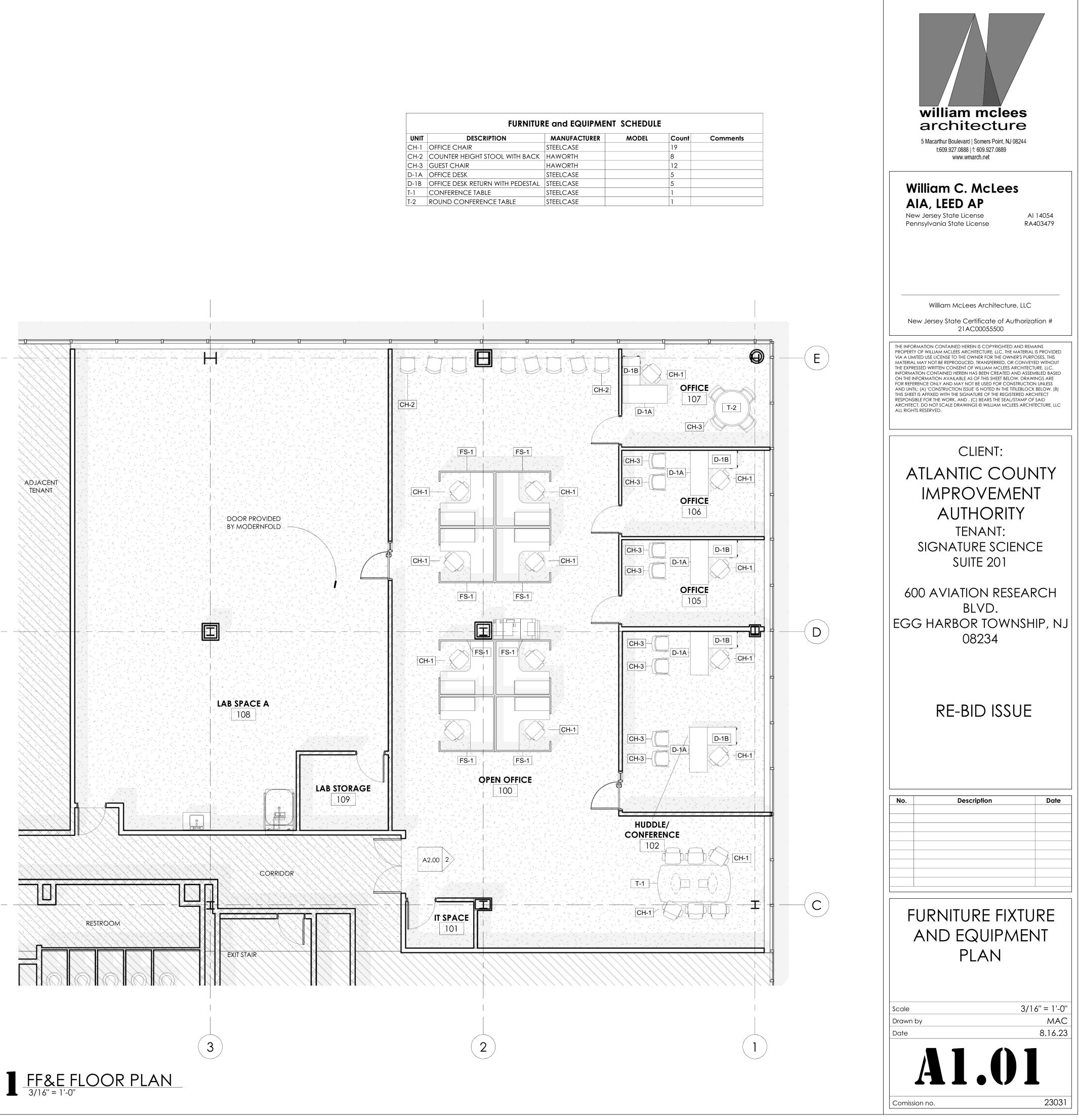
FLOOR PLAN LEGEND







	RE and E	
UNIT	DESCRIPTION	MANUF
CH-1	OFFICE CHAIR	STEELCAS
CH-2	COUNTER HEIGHT STOOL WITH BACK	HAWORT
CH-3	GUEST CHAIR	HAWORT
D-1A	OFFICE DESK	STEELCAS
D-1B	OFFICE DESK RETURN WITH PEDESTAL	STEELCAS
T-1	CONFERENCE TABLE	STEELCAS
T-2	ROUND CONFERENCE TABLE	STEELCAS

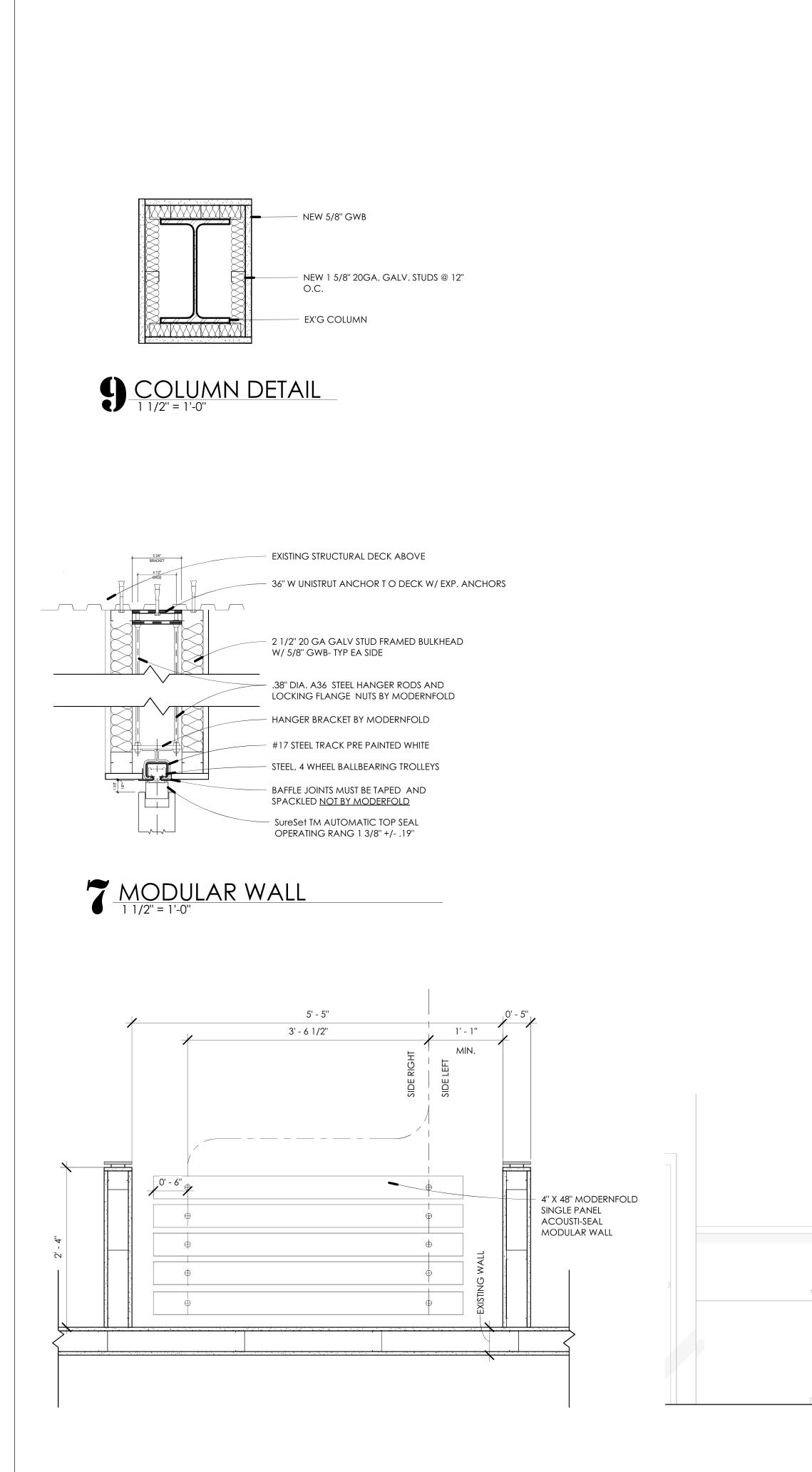




REFLECTED CEILING LEGEND

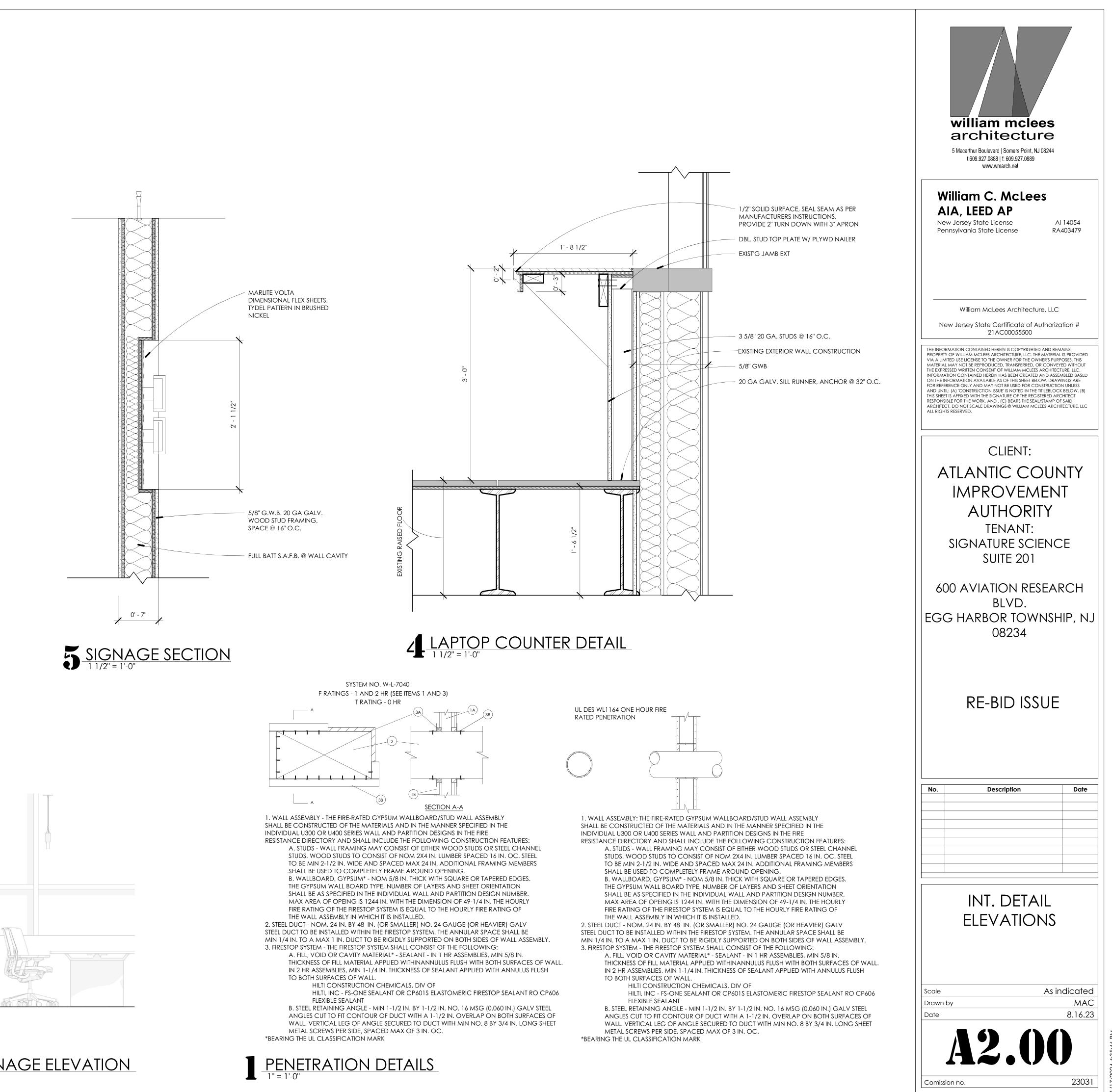
9'-0'' GWB	CEILING TAG CEILING FINISH MATERIAL CEILING HT. A.F.F.
Т	THERMOSTAT
G—	DIRECT VENT THRU ROOF
	SUPPLY DIFFUSER
	RETURN VENT
SD	SMOKE DETECTOR
©	CO DETECTOR
ELEC.	ELECTRICAL PANEL
	EXIT SIGN
	EMERGENCY LIGHT
0	CEILING MOUNTED FIXTURE
	2x2 TROFFER
	WALL MOUNTED FIXTURE
\oplus	SMALL PENDANT FIXTURE
\bigcirc	LARGE PENDANT/ CHANDELIER
	LINEAR SURFACE MOUNT LIGHT FIXTURE
	LINEAR PENDANT LIGHT FIXTURE
	FAN/LIGHT
99	TRACK LIGHT

Image: constraint of the second sec
William C. McLees AIA, LEED AP New Jersey State License AI 14054 Pennsylvania State License RA403479
William McLees Architecture, LLC New Jersey State Certificate of Authorization # 21AC00055500
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CLIENT: ATLANTIC COUNTY IMPROVEMENT AUTHORITY TENANT: SIGNATURE SCIENCE SUITE 201 600 AVIATION RESEARCH BLVD. EGG HARBOR TOWNSHIP, NJ 08234
RE-BID ISSUE
No. Description Date
REFLECTED CEILING PLAN
Scale 1/4" = 1'-0" Drawn by MAC Date 8.16.23 Allo02
Comission no. 23031





MODULAR WALL PLAN DETAIL



CHARACTERISTICS OF COLD-FORMED METAL FRAMING

ARE REQUIRED, IDENTIFY LOCATIONS ON DRAWINGS

1.1 SECTION REQUIREMENTS

3.1 FRAMING

A. SUBMITTALS: PRODUCT DATA. 3. COMPLY WITH AISI'S "SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS" FOR CALCULATING STRUCTURAL

ONSIDER RETAINING FIRST PARAGRAPH BELOW IF PROJECT IS LIMITED TO ONE- AND TWO-FAMILY RESIDENTIAL CONSTRUCTION, FRAMING IS FULLY DETAILED, AND THIS HUD DOCUMENT IS ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION. IF RETAINING, DELETE PERFORMANCE REQUIREMENTS AND REFERENCES TO A QUALIFIED PROFESSIONAL ENGINEER ABOVE. COMPLY WITH HUD'S "PRESCRIPTIVE METHOD FOR RESIDENTIAL COLD-FORMED METAL FRAMING.

E. PROTECT COLD-FORMED METAL FRAMING FROM CORROSION, DEFORMATION, AND OTHER DAMAGE DURING DELIVERY, STORAGE, AND HANDLING. PART 2 - PRODUCTS 2.1 MATERIALS SELECT ONE OR MORE OF GRADE REQUIREMENTS IN FIRST PARAGRAPH BELOW, OR REVISE TO A DIFFERENT GRADE IF NECESSARY; IF MULTIPLE GRADES

A. GALVANIZED STEEL SHEET: ASTM A 653/A 653M, G60 ZINC COATED; STRUCTURAL STEEL (SS); GRADE 33. B. STEEL STUDS: C-SHAPED, WITH FLANGE WIDTH OF NOT LESS THAN 1-5/8 INCHES, MINIMUM UNCOATED STEEL THICKNESS OF 0.0329 INCH, AND OF DEPTHS INDICATED C. STEEL JOISTS: C-SHAPED, WITH FLANGE WIDTH OF NOT LESS THAN 1-5/8 INCHES, MINIMUM UNCOATED STEEL DESIGN THICKNESS OF 0.538 INCH, AND

OF DEPTHS INDICATED. D. STEEL TRACK: U-SHAPED, MINIMUM UNCOATED METAL THICKNESS SAME AS STUDS OR JOISTS USED WITH TRACK, WITH FLANGE WIDTHS OF 1-1/4 INCHES FOR STUDS AND 1-5/8 INCHES FOR JOISTS, OF WEB DEPTHS INDICATED. 2.2 ACCESSORIES

A ACCESSORIES' FARRICATE FROM THE SAME MATERIAL AND FINISH LISED FOR FRAMING MEMBERS. OF MANUFACTURER'S STANDARD THICKNESS AND CONFIGURATION, UNLESS OTHERWISE INDICATED. B. CAST-IN-PLACE ANCHOR BOLTS: ASTM F 1554, GRADE 36, THREADED CARBON-STEEL HEX-HEADED BOLTS AND CARBON-STEEL NUTS; AND FLAT, HARDENED-STEEL WASHERS; ZINC COATED BY HOT-DIP PROCESS ACCORDING TO ASTM A 153/A 153M, CLASS C. . MECHANICAL FASTENERS: CORROSION-RESISTANT COATED, SELF-DRILLING, SELF-THREADING STEEL DRILL SCREWS. D. INSULATION: ASTM C 665, TYPE I, UNFACED MINERAL-FIBER BLANKETS.

E. GALVANIZING REPAIR PAINT: SSPC-PAINT 20 OR DOD-P-21035. PART 3 - EXECUTION

COMPLY WITH AWS D1.3, "STRUCTURAL WELDING CODE - SHEET STEEL

A. INSTALL FRAMING AND ACCESSORIES LEVEL, PLUMB, SQUARE, AND TRUE TO LINE, AND SECURELY FASTENED, ACCORDING TO ASTM C 1007. TEMPORARILY BRACE FRAMING UNTIL ENTIRE INTEGRATED SUPPORTING STRUCTURE HAS BEEN COMPLETED AND PERMANENT CONNECTIONS ARE

I. CUT FRAMING MEMBERS BY SAWING OR SHEARING; DO NOT TORCH CUT. 2. FASTEN FRAMING MEMBERS BY WELDING OR SCREW FASTENING 3. INSTALL INSULATION IN BUILT-UP EXTERIOR FRAMING MEMBERS

4. FASTEN REINFORCEMENT PLATES OVER WEB PENETRATIONS LARGER THAN STANDARD PUNCHED OPENINGS. B. ERECTION TOLERANCES: INSTALL COLD-FORMED METAL FRAMING WITH A MAXIMUM VARIATION OF 1/8 INCH IN 10 FEET AND WITH INDIVIDUAL RAMING MEMBERS NO MORE THAN PLUS OR MINUS 1/8 INCH FROM PLAN LOCATION. CUMULATIVE ERROR SHALL NOT EXCEED MINIMUM FASTENING REQUIREMENTS OF SHEATHING OR OTHER FINISHING MATERIALS C. STUDS: INSTALL CONTINUOUS TOP AND BOTTOM TRACKS SECURELY ANCHORED AT CORNERS AND ENDS. SQUARELY SEAT STUDS AGAINST WEBS OF 'OP AND BOTTOM TRACKS. SPACE STUDS AS INDICATED, SET PLUMB, ALIGN, AND FASTEN BOTH FLANGES OF STUDS TO TOP AND BOTTOM TRACKS. I . INSTALL AND FASTEN HORIZONTAL BRIDGING IN STUD SYSTEM, SPACED IN ROWS NOT MORE THAN 48 INCHES APART.

DELETE FIRST SUBPARAGRAPH BELOW IF NOT REQUIRED; DIAGONAL BRACING IS USUALLY LIMITED TO SHEAR WALLS. 2. INSTALL STEEL-SHEET DIAGONAL BRACING STRAPS TO BOTH STUD FLANGES, TERMINATE AT AND FASTEN TO REINFORCED TOP AND BOTTOM TRACK AND ANCHOR TO STRUCTURE. 3. INSTALL MISCELLANEOUS FRAMING AND CONNECTIONS TO PROVIDE A COMPLETE AND STABLE WALL-FRAMING SYSTEM

DELETE SUBPARAGRAPH BELOW IE NON-LOAD-BEARING, CURTAIN-WALL FRAMING IS NOT REQUIRED 4. ISOLATE NON-LOAD-BEARING, CURTAIN-WALL FRAMING FROM BUILDING STRUCTURE USING VERTICAL SLIDE CLIPS OR DEFLECTION TRACK TO PREVENT RANSFER OF VERTICAL LOADS WHILE PROVIDING LATERAL SUPPORT. D. JOISTS: INSTALL AND SECURELY ANCHOR PERIMETER JOIST TRACK SIZED TO MATCH JOISTS. INSTALL JOISTS BEARING ON SUPPORTING FRAMING, BRACE AND REINFORCE, AND FASTEN TO BOTH FLANGES OF JOIST TRACK.

1. INSTALL BRIDGING AND FASTEN BRIDGING AT EACH JOIST INTERSECTION. 2. INSTALL MISCELLANEOUS JOIST FRAMING AND CONNECTIONS, INCLUDING WEB STIFFENERS, CLOSURE PIECES, CLIP ANGLES, CONTINUOUS ANGLES, HOLD-DOWN ANGLES, ANCHORS, AND FASTENERS. END OF SECTION 054000

SECTION 061053 - MISCELLANEOUS ROUGH CARPENTRY PART 4 - GENERAL

4.1 SECTION REQUIREMENTS A. SUBMITTALS: MODEL CODE EVALUATION REPORTS FOR TREATED WOOD.

PART 5 - PRODUCTS 5.1 WOOD PRODUCTS, GENERAL

A. LUMBER: PROVIDE DRESSED LUMBER, \$45, MARKED WITH GRADE STAMP OF INSPECTION AGENCY B. ALL LUMBER SHALL BE FIRE RETARDANT TREATED UNLESS NOTED OTHERWISE. MEMBERS SHALL BEAR STAMPING VERIFYING THE SAME. 5.2 TREATED MATERIALS A. PRESERVATIVE-TREATED MATERIALS: AWPA C2.

. USE TREATMENT CONTAINING NO ARSENIC OR CHROMIUM. 2. KILN-DRY LUMBER AFTER TREATMENT TO A MAXIMUM MOISTURE CONTENT OF 19 PERCENT.

MARK LUMBER WITH TREATMENT QUALITY MARK OF AN INSPECTION AGENCY APPROVED BY THE ALSC BOARD OF REVIEW. 3. PROVIDE PRESERVATIVE-TREATED MATERIALS FOR ALL MISCELLANEOUS ROUGH CARPENTRY UNLESS OTHERWISE INDICATED.

C. FIRE-RETARDANT-TREATED MATERIALS: COMPLY WITH PERFORMANCE REQUIREMENTS IN AWPA C20 USE EXTERIOR TYPE FOR EXTERIOR LOCATIONS AND WHERE INDICATED.

2. USE INTERIOR TYPE A, HIGH TEMPERATURE (HT) WHERE INDICATED. 3. USE INTERIOR TYPE A, UNLESS OTHERWISE INDICATED.

. IDENTIFY WITH APPROPRIATE CLASSIFICATION MARKING OF A TESTING AND INSPECTING AGENCY ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION. D. PROVIDE FIRE-RETARDANT TREATED MATERIALS FOR ALL MISCELLANEOUS ROUGH CARPENTRY.

A. DIMENSION LUMBER: 1. MAXIMUM MOISTURE CONTENT: 15 PERCENT.

SELECT ONE GRADE REQUIREMENT AND ONE OR MORE SPECIES GROUP IN FIRST TWO SUBPARAGRAPHS BELOW DEPENDING ON AVAILABILITY AND SUITABILITY FOR PROJECT SPECIES GROUPS IN FIRST SUBPARAGRAPH BELOW ARE LISTED IN ORDER OF DECREASING STRENGTH (EXTREME FIBER IN BENDING ELECT ONE OR MORE SPECIES IN FIRST TWO PARAGRAPHS BELOW DEPENDING ON AVAILABILITY AND SUITABILITY FOR PROJECT B. EXPOSED BOARDS: HEM-FIR, SELECT MERCHANTABLE OR NO. 1 COMMON: NLGA, WCLIB, OR WWPA15 PERCENT MAXIMUM MOISTURE CONTENT C. CONCEALED BOARDS: EASTERN SOFTWOODS, NO. 3 COMMON: NELMA WITH 15 PERCENT MAXIMUM MOISTURE CONTENT.

MISCELLANEOUS LUMBER: CONSTRUCTION, OR NO. 2 GRADE WITH 15 PERCENT MAXIMUM MOISTURE CONTENT OF ANY SPECIES. PROVIDE FOR NAILERS, BLOCKING, AND SIMILAR MEMBERS. 5.4 PLYWOOD BACKING PANEL A. TELEPHONE AND ELECTRICAL EQUIPMENT BACKING PANELS: PLYWOOD, EXPOSURE 1, C-D PLUGGED, FIRE-RETARDANT TREATED, NOT LESS THAN 1/2 INCH THICK.

A. FASTENERS: SIZE AND TYPE INDICATED. WHERE ROUGH CARPENTRY IS EXPOSED TO WEATHER, IN GROUND CONTACT, OR IN AREA OF HIGH RELATIVE HUMIDITY, PROVIDE FASTENERS WITH HOT-DIP ZINC COATING COMPLYING WITH ASTM A 153/A 153M. 1. POWER-DRIVEN FASTENERS: CABO NER-272.

6.1 INSTALLATION A, SET MISCELLANEOUS ROUGH CARPENTRY TO REQUIRED LEVELS AND LINES, WITH MEMBERS PLUMB, TRUE TO LINE, CUT, AND FITTED, LOCATE NAILERS BLOCKING, AND SIMILAR SUPPORTS TO COMPLY WITH REQUIREMENTS FOR ATTACHING OTHER CONSTRUCTION B. SECURELY ATTACH MISCELLANEOUS ROUGH CARPENTRY TO SUBSTRATES, COMPLYING WITH THE FOLLOWING

I. TABLE 2305.2, "FASTENING SCHEDULE," IN NEW JERSEY IBC 2006.

SECTION 062000 - FINISH CARPENTR

PART 6 - EXECUTION

PART 1 -	GENERAL
1.1	SECTION REQUIREMENTS
Α.	SUBMITTALS: SAMPLES FOR HARDWOOD VENEER PLYWOOD PANELING.
PART 2 -	PRODUCTS
2.1	MATERIALS, GENERAL

LUMBER: DOC PS 20 AND GRADING RULES OF INSPECTION AGENCIES CERTIFIED BY AMERICAN LUMBER STANDARDS COMMITTEE BOARD OF REVIEW SOFTWOOD PLYWOOD DOC PS HARDWOOD PLYWOOD: HPVA HP-1

D.	MDF: ANSI A208.2, GRADE 130, MADE WITH BINDER CONTAINING NO UREA-FORMALDEHYDE RESIN.
Ε.	PARTICLEBOARD: ANSI A208.1, GRADE M-2, MADE WITH BINDER CONTAINING NO UREA-FORMALDEHYDE RESIN.
F.	MELAMINE-FACED PARTICLEBOARD: PARTICLEBOARD COMPLYING WITH ANSI A208.1, GRADE M-2, FINISHED ON BOTH FACES WITH
THERMALLY	(FUSED, MELAMINE-IMPREGNATED DECORATIVE PAPER COMPLYING WITH LMA SAT-1.
2.2	EXTERIOR FINISH CARPENTRY

IF RETAINING FIRST PARAGRAPH BELOW SELECT ONE TEXTURE GRADE AND SPECIES EXTERIOR LUMBER TRIM: SMOOTH-TEXTURED, PREMIUM OR 2 COMMON (STERLING) EASTERN WHITE PINE, EASTERN HEMLOCK-BALSAM FIR-TAMARACK, EASTERN SPRUCE, OR WHITE WOODS. MAXIMUM MOISTURE CONTENT: 19 PERCENT CELLULAR PVC EXTERIOR TRIM: EXTRUDED, EXPANDED PVC WITH A SMALL-CELL MICROSTRUCTURE, MADE FROM UV- AND HEAT-STABILIZED,

RIGID MATERIAL AVAILABLE PRODUCTS FOAM-PLASTIC MOLDINGS: MOLDED PRODUCT OF SHAPES INDICATED, WITH A TOUGH OUTER SKIN ON EXPOSED SURFACES; FACTORY PRIMED. PRODUCT IS RECOMMENDED BY MANUFACTURER FOR EXTERIOR USE. AVAILABLE PRODUCTS

PLYWOOD SIDING: APA-RATED SIDING, 1/2-INCH- THICK, 303-OL, MEDIUM-DENSITY OVERLAY, V-GROOVES AT 6 INCHES O.C INTERIOR STANDING AND RUNNING TRIM INTERIOR SOFTWOOD LUMBER TRIM: C SELECT (CHOICE), EASTERN WHITE, IDAHO WHITE, LODGEPOLE, PONDEROSA, OR SUGAR PINE. MAXIMUM MOISTURE CONTENT: 19 PERCENT INTERIOR HARDWOOD LUMBER TRIM: CLEAR, KILN-DRIED, ALDER OR POPLAR UNLESS INDICATED OTHERWISE IN THE CONSTRUCTION

WOOD MOLDINGS: WMMPA WM 4 MADE TO PATTERNS IN WMMPA WM 12 FROM KILN-DRIED STOCK SOFTWOOD MOLDINGS FOR TRANSPARENT FINISH: EASTERN WHITE, IDAHO WHITE, LODGEPOLE, PONDEROSA, RADIATA, OR SUGAR PINE OTHERWISE INDICATED IN THE CONSTRUCTION DOCUMENTS. MOLDINGS FOR PAINTED FINISH: P-GRADE EASTERN WHITE, IDAHO WHITE, LODGEPOLE, PONDEROSA, RADIATA, OR SUGAR PINE UNLESS VISE INDICATED IN THE CONSTRUCTION DOCUMENTS. BASE, SHOW MOLD, CASING, CHAIR RAILS AND STOPS: REFER TO INTERIOR DESIGN DOCUMENTS

FOAM-PLASTIC MOLDINGS: MOLDED PRODUCT OF SHAPES INDICATED, WITH A TOUGH OUTER SKIN ON EXPOSED SURFACES; FACTORY PRIMED. EXPOSED SURFACES SHALL NOT BE SHAPED AFTER MOLDING. AVAILABLE PRODUCTS SHELVING AND CLOTHES RODS REFER TO INTERIOR DESIGN DOCUMENTS FOR MANUFACTURER AND SPECIFICATIONS ON CLOSET INTERIORS.

MISCELLANEOUS MATERIALS ASTENERS FOR EXTERIOR FINISH CARPENTRY: STAINLESS-STEEL GLUE: ALIPHATIC-RESIN, POLYURETHANE, OR RESORCINOL WOOD GLUE RECOMMENDED BY MANUFACTURER

USE WATERPROOF RESORCINOL GLUE FOR EXTERIOR APPLICATIONS. ADHESIVE FOR CELLULAR PVC TRIM: PRODUCT RECOMMENDED BY TRIM MANUFACTURER.

INSTALLATION ADHESIVE FOR FOAM PLASTIC MOLDINGS: PRODUCT RECOMMENDED FOR INDICATED USE BY FOAM PLASTIC MOLDING MANUFACTURER INSECT SCREENING FOR SOFFIT VENTS: PVC-COATED GLASS-FIBER FABRIC.

PART 3 - EXECUTION INSTALLATION

CONDITION FINISH CARPENTRY IN INSTALLATION AREAS FOR 24 HOURS BEFORE INSTALLING. PRIME AND BACKPRIME LUMBER FOR PAINTED FINISH EXPOSED ON THE EXTERIOR. INSTALL FINISH CARPENTRY LEVEL, PLUMB, TRUE, AND ALIGNED WITH ADJACENT MATERIALS. SCRIBE AND CUT TO FIT ADJOINING WORK.

REFINISH AND SEAL CUTS. INSTALL STANDING AND RUNNING TRIM WITH MINIMUM NUMBER OF JOINTS PRACTICAL, USING FULL-LENGTH PIECES FROM MAXIMUM LENGTHS OF LUMBER AVAILABLE. STAGGER JOINTS IN ADJACENT AND RELATED TRIM. COPE AT RETURNS AND MITER AT CORNER NAIL SIDING AT EACH STUD. DO NOT ALLOW NAILS TO PENETRATE MORE THAN ONE THICKNESS OF SIDING. UNLESS OTHERWISE

RECOMMENDED BY SIDING MANUFACTURER. SEAL JOINTS AT INSIDE AND OUTSIDE CORNERS AND AT TRIM LOCATIONS SELECT AND ARRANGE PANELING FOR BEST MATCH OF ADJACENT UNITS. INSTALL WITH UNIFORM TIGHT JOINTS. END OF SECTION 062000

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SECTION 072100 - THERMAL INSULATION PART 1 - GENERAL

SECTION REQUIREMENTS Submittals: Product Data

Surface-Burning Characteristics: ASTM E 84, and as follows: Revise first subparagraph below to suit requirements of authorities having jurisdiction. The International Building Code also requires a flame-spread index of 25 or less for concealed insulation in Types I and II construction. Flame-Spread Index: 25 or less where exposed; otherwise, as indicated in Part 2 "Insulation Products" Article. Smoked-Developed Index: 450 or less. PART 2 - PRODUCTS

INSULATION PRODUCTS Usually select Type IV in first paragraph below if extruded polystyrene is used

Mineral-Fiber-Blanket Insulation: ASTM C 665, Type I, unfaced with fibers manufactured from glass, slag wool, or rock wool, with flamespread index of 25 or less.

ACCESSORIES If retaining first paragraph below, select first water-vapor transmission requirement if sheet radiant barrier also serves as vapor barrier, second requirement if not

None. 6-mil (0.15-mm) thickness in first paragraph below applies to unreinforced polyethylene.

PART 3 - EXECUTION INSTALLATION Install insulation in areas and in thicknesses indicated or required to produce R-values indicated. Cut and fit tightly around obstructions and fill voids with insulation Except for loose-fill insulation and insulation that is friction fitted in stud cavities, bond units to substrate with adhesive or use mechanical

anchorage to provide permanent placement and support of units. Place loose-fill insulation to comply with ASTM C 1015. 1. Comply with the CIMA's Special Report #3, "Standard Practice for Installing Cellulose Insulation."

Extend vapor retarder to extremities of areas to be protected from vapor transmission. Secure in place with adhesives or other anchorage. Locate seams at framing members, overlap, and seal with tape. END OF SECTION 072100

SECTION 078100 - APPLIED FIREPROOFING PART 7 - GENERAL

7.1 SECTION REQUIREMENTS

A. SUBMITTALS: PRODUCT DATA AND RESEARCH/EVALUATION REPORTS. B. PROVIDE PRODUCTS IDENTICAL TO THOSE TESTED FOR FIRE RESISTANCE PER ASTM E 119 BY A TESTING AGENCY ACCEPTABLE TO AUTHORITIES **AVING JURISDICTION** C. PROVIDE PRODUCTS CONTAINING NO DETECTABLE ASBESTOS AS DETERMINED ACCORDING TO THE METHOD SPECIFIED IN 40 CFR 763, SUBPART E, APPENDIX E, SECTION 1, "POLARIZED LIGHT MICROSCOPY.

PART 8 - PRODUCTS 8.1 CONCEALED APPLIED FIREPROOFING IF EXPOSED FIREPROOFING IS REQUIRED, RETAIN THIS ARTICLE AND REVISE TITLE AND PHYSICAL PROPERTIES TO SUIT PRODUCTS SELECTED AND REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION.

A. PRODUCTS: 1. MONOKOTE BY WR GRACE AND CO

B. MATERIAL COMPOSITION: AS FOLLOWS 1. CEMENTITIOUS FIREPROOFING CONSISTING OF FACTORY-MIXED, DRY FORMULATION OF GYPSUM OR PORTLAND CEMENT BINDERS, ADDITIVES, AND LIGHTWEIGHT MINERAL OR SYNTHETIC AGGREGATES MIXED WITH WATER AT PROJECT SITE. 2. SPRAYED-FIBER FIREPROOFING CONSISTING OF FACTORY-MIXED, DRY FORMULATION OF INORGANIC BINDERS, MINERAL FIBERS, FILLERS, AND ADDITIVES MIXED WITH WATER AT SPRAY NOZZLE

RATINGS, AS FOLLOWS I. DRY DENSITY: 15 LB/CU. FT., OR GREATER IF REQUIRED TO ATTAIN FIRE-RESISTANCE RATINGS INDICATED, PER ASTM E 605 OR AWCI TECHNICAL MANUAL 12-A, SECTION 5.4.5, "DISPLACEMENT METHOD."

2. BOND STRENGTH: 150 LBF/SQ. FT. PER ASTM E 736. 3. CORROSION RESISTANCE: NO EVIDENCE OF CORROSION PER ASTM E 937.

4. EFFECT OF IMPACT ON BONDING: NO CRACKING, SPALLING, OR DELAMINATION PER ASTM E 760. 5. AIR EROSION: MAXIMUM WEIGHT LOSS OF 0.025 G/SQ. FT. IN 24 HOURS PER ASTM E 859. D. AUXILIARY MATERIALS: PROVIDE AUXILIARY MATERIALS THAT ARE COMPATIBLE WITH APPLIED FIREPROOFING AND SUBSTRATES AND ARE APPROVED BY A TESTING AND INSPECTING AGENCY ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION FOR USE IN FIRE-RESISTANCE DESIGNS INDICATED. CONSULT MANUFACTURERS FOR REQUIREMENTS AND RECOMMENDATIONS FOR PRODUCTS IN SUBPARAGRAPH BELOW.

I. SEALER/TOPCOAT FOR SPRAYED-FIBER FIREPROOFING: PROTECTIVE COATING RECOMMENDED IN WRITING BY FIREPROOFING MANUFACTURER. PART 9 - EXECUTION 9.1 INSTALLATION A. CLEAN SUBSTRATES OF SUBSTANCES THAT COULD IMPAIR BOND OF FIREPROOFING, INCLUDING DIRT, OIL, GREASE, RELEASE AGENTS, ROLLING COMPOUNDS, LOOSE MILL SCALE, AND INCOMPATIBLE PRIMERS, PAINTS, AND ENCAPSULANTS.

B. EXTEND FIREPROOFING IN FULL THICKNESS OVER ENTIRE AREA OF EACH SUBSTRATE TO BE PROTECTED. UNLESS OTHERWISE RECOMMENDED IN WRITING BY FIREPROOFING MANUFACTURER, INSTALL BODY OF FIREPROOFING IN A SINGLE COURSE. SPRAY APPLY FIREPROOFING TO MAXIMUM EXTENT POSSIBLE C. APPLY FIREPROOFING IN THICKNESSES AND DENSITIES NOT LESS THAN THOSE REQUIRED TO ACHIEVE FIRE-RESISTANCE RATINGS DESIGNATED FOR EACH CONDITION, BUT NOT LESS THAN 0.375-INCH THICKNESS, AND 15-LB/CU. FT DRY DENSITY.

. APPLY SEALER/TOPCOAT TO SPRAYED-FIBER FIREPROOFIN REVISE PARAGRAPH BELOW IF CONTRACTOR IS REQUIRED TO PROVIDE TESTING. INSERT SPECIFIC TESTING REQUIREMENTS TO COMPLY WITH REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION. TESTING AGENCY: OWNER WILL ENGAGE A QUALIFIED INDEPENDENT TESTING AND INSPECTING AGENCY TO PERFORM FIELD TESTS AND INSPECTIONS AND PREPARE TEST REPORTS.

END OF SECTION 078100 SECTION 078413 - PENETRATION FIRESTOPPING

PART 10 - GENERAL 10.1 SECTION REQUIREMENTS

A. SUBMITTALS: PRODUCT DATA AND PRODUCT CERTIFICATES SIGNED BY MANUFACTURER CERTIFYING THAT PRODUCTS FURNISHED COMPLY WITH EQUIREMENTS. B. PROVIDE FIRESTOPPING SYSTEMS WITH FIRE-RESISTANCE RATINGS INDICATED BY REFERENCE TO UL DESIGNATIONS AS LISTED IN ITS "FIRE RESISTANCE DIRECTORY," OR TO DESIGNATIONS OF ANOTHER TESTING AGENCY ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION.

C. PROVIDE THROUGH-PENETRATION FIRESTOPPING SYSTEMS WITH F-RATINGS INDICATED, AS DETERMINED ACCORDING TO ASTME 814, BUT NOT LESS THAN FIRE-RESISTANCE RATING OF CONSTRUCTION PENETRATED DELETE SUBPARAGRAPH BELOW IF NO T-RATINGS ARE REQUIRED. T-RATINGS ARE GENERALLY ONLY REQUIRED WHERE FIRESTOPPING IS EXPOSED IN AN OCCUPIABLE SPACE. IF T-RATINGS ARE REQUIRED, SHOW LOCATIONS ON DRAWINGS 1. PROVIDE THROUGH-PENETRATION FIRESTOPPING SYSTEMS WITH T-RATINGS AS WELL AS F-RATINGS, AS DETERMINED ACCORDING TO ASTM E 814.

WHERE INDICATED D. FOR EXPOSED FIRESTOPPING, PROVIDE PRODUCTS WITH FLAME-SPREAD INDEXES OF LESS THAN 25 AND SMOKE-DEVELOPED INDEXES OF LESS THAN 450, AS DETERMINED ACCORDING TO ASTM E 84.

PART 11 - PRODUCTS 11.1 FIRESTOP SYSTEMS A. ANY THROUGH-PENETRATION FIRESTOP SYSTEM THAT IS CLASSIFIED BY UL FOR THE APPLICATION AND WITH F-RATING INDICATED MAY BE USED.

B. UL-CLASSIFIED SYSTEM DESIGNATIONS ARE INDICATED ON DRAWINGS SELECT EITHER PARAGRAPH ABOVE OR APPLICABLE PARAGRAPHS BELOW FOR APPLICATIONS REQUIRED. PART 12 - EXECUTION 12.1 INSTALLATION

A. INSTALL FIRESTOPPING SYSTEMS TO COMPLY WITH REQUIREMENTS LISTED IN TESTING AGENCY'S DIRECTORY FOR INDICATED FIRE-RESISTANCE RATING. DELETE PARAGRAPH AND SUBPARAGRAPHS BELOW IF LABELS ARE NOT REQUIRED. B. IDENTIFICATION: IDENTIFY THROUGH-PENETRATION FIRESTOP SYSTEMS WITH PERMANENT LABELS ATTACHED TO SURFACES ADJACENT TO FIRESTOP SYSTEMS SO THAT LABELS WILL BE VISIBLE TO ANYONE SEEKING TO REMOVE PENETRATING ITEMS OR FIRESTOP SYSTEMS. INCLUDE THE FOLLOWING

INFORMATION ON LABELS: 1. THE WORDS "WARNING - THROUGH-PENETRATION FIRESTOP SYSTEM - DO NOT DISTURB." 2. CLASSIFICATION/LISTING DESIGNATION OF APPLICABLE TESTING AND INSPECTING AGENCY

3. THROUGH-PENETRATION FIRESTOP SYSTEM MANUFACTURER'S NAME AND PRODUCT NAME END OF SECTION 078413

SECTION 079200 - JOINT SEALANTS PART 13 - GENERAL

13.1 SECTION REQUIREMENTS A. SUBMITTALS: PRODUCT DATA AND COLOR SAMPLES.

B. ENVIRONMENTAL LIMITATIONS: DO NOT PROCEED WITH INSTALLATION OF JOINT SEALANTS WHEN AMBIENT AND SUBSTRATE TEMPERATURE CONDITIONS ARE OUTSIDE LIMITS PERMITTED BY JOINT SEALANT MANUFACTURER OR ARE BELOW 40 DEG F PART 14 - PRODUCTS 14.1 JOINT SEALANTS

A. COMPATIBILITY: PROVIDE JOINT SEALANTS, JOINT FILLERS, AND OTHER RELATED MATERIALS THAT ARE COMPATIBLE WITH ONE ANOTHER AND WITH JOINT SUBSTRATES UNDER SERVICE AND APPLICATION CONDITIONS.

 B. SEALANT FOR USE IN BUILDING EXPANSION JOINTS:
 1. SINGLE-COMPONENT, NEUTRAL-CURING SILICONE SEALANT, ASTM C 920, TYPE \$; GRADE N\$; CLASS 25; USES T, M, AND O, WITH THE ADDITIONAL CAPABILITY TO WITHSTAND [50 PERCENT MOVEMENT IN BOTH EXTENSION AND COMPRESSION FOR A TOTAL OF 100 PERCENT MOVEMENT] [100 PERCENT MOVEMENT IN EXTENSION AND 50 PERCENT MOVEMENT IN COMPRESSION FOR A TOTAL OF 150 PERCENT MOVEMENTI C. SEALANT FOR GENERAL EXTERIOR USE WHERE ANOTHER TYPE IS NOT SPECIFIED[, ONE OF THE FOLLOWING]:

RETAIN ONE OR MORE OF THREE SUBPARAGRAPHS BELOW. SINGLE-COMPONENT NONSAG POLYSILLEDE SEALANT ASTM C 920 TYPE S' GRADE NS' CLASS 12-1/2' LISES NT M G A AND O 2. SINGLE-COMPONENT, NEUTRAL-CURING SILICONE SEALANT, ASTM C 920, TYPE S; GRADE NS; CLASS 25; USES T, NT, M, G, A, AND O. 3. SINGLE-COMPONENT, NONSAG URETHANE SEALANT, ASTM C 920, TYPE S; GRADE NS; CLASS 25; AND USES NT, M, A, AND O.

RETAIN FIRST TWO PARAGRAPHS BELOW FOR TRAFFIC BEARING JOINTS IF ANY D. SEALANT FOR EXTERIOR TRAFFIC-BEARING JOINTS, WHERE SLOPE PRECLUDES USE OF POURABLE SEALANT: SINGLE-COMPONENT, NONSAG URETHANE SEALANT, ASTM C 920, TYPE S; GRADE NS; CLASS 25; USES T, NT, M, G, A, AND O.
 E. SEALANT FOR EXTERIOR TRAFFIC-BEARING JOINTS, WHERE SLOPE ALLOWS USE OF POURABLE SEALANT:

SINGLE-COMPONENT, POURABLE URETHANE SEALANT, ASTM C 920, TYPE S; GRADE P; CLASS 25; USES T, M, G, A, AND O. F. SEALANT FOR USE IN INTERIOR JOINTS IN CERAMIC TILE AND OTHER HARD SURFACES IN KITCHENS AND TOILET ROOMS AND AROUND PLUMBING FIXTURES: SINGLE-COMPONENT, MILDEW-RESISTANT SILICONE SEALANT, ASTM C 920, TYPE S; GRADE NS; CLASS 25; USES NT, G, A, AND O; FORMULATED WITH

G. SEALANT FOR INTERIOR USE AT PERIMETERS OF DOOR AND WINDOW FRAMES:

NONSAG, PAINTABLE, NONSTAINING, LATEX SEALANT COMPLYING WITH ASTM C 834. RETAIN LAST PARAGRAPH ABOVE AND POSSIBLY PARAGRAPH BELOW IF ACOUSTICAL ASSEMBLIES ARE USED. I. ACOUSTICAL SEALANT FOR CONCEALED JOINTS:

. NONDRYING, NONHARDENING, NONSKINNING, NONSTAINING, GUNNABLE, SYNTHETIC-RUBBER SEALANT RECOMMENDED FOR SEALING INTERIOR CONCEALED JOINTS TO REDUCE TRANSMISSION OF AIRBORNE SOUND. 14.2 JOINT-SEALANT BACKING

A. GENERAL: PROVIDE SEALANT BACKINGS OF MATERIAL AND TYPE THAT ARE NONSTAINING; ARE COMPATIBLE WITH JOINT SUBSTRATES, SEALANTS, PRIMERS, AND OTHER JOINT FILLERS; AND ARE APPROVED FOR APPLICATIONS INDICATED BY SEALANT MANUFACTURER. B. CYLINDRICAL SEALANT BACKINGS: ASTM C 1330, OF SIZE AND DENSITY TO CONTROL SEALANT DEPTH AND OTHERWISE CONTRIBUTE TO PRODUCING OPTIMUM SEALANT PERFORMANCE

C. BOND-BREAKER TAPE: POLYETHYLENE TAPE OR OTHER PLASTIC TAPE RECOMMENDED BY SEALANT MANUFACTURER FOR PREVENTING SEALANT ROM ADHERING TO RIGID, INFLEXIBLE JOINT-FILLER MATERIALS OR JOINT SURFACES AT BACK OF JOINT. PART 15 - EXECUTION 15.1 INSTALLATION

A. COMPLY WITH ASTM C 1193 B. COMPLY WITH ASTM C 919 FOR USE OF JOINT SEALANTS IN ACOUSTICAL APPLICATIONS. END OF SECTION 079200

SECTION 081113 - HOLLOW METAL DOORS AND FRAMES PART 1 ·

GENERAL SECTION REQUIREMENTS SUBMITTALS: PRODUCT DATA AND SHOP DRAWINGS

COMPLY WITH ANSI/SDI A250.8. FIRE-RATED DOORS AND FRAMES: LABELED BY A TESTING AND INSPECTING AGENCY ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION BASED ON TESTING PER NFPA 252 AT NEUTRAL PRESSURE. AT STAIRS AND EXIT PASSAGEWAYS, PROVIDE DOORS THAT HAVE A TEMPERATURE RISE RATING OF 450 DEG F SMOKE-CONTROL DOOR ASSEMBLIES: COMPLY WITH NFPA 105 OR UL 1784. PRODUCTS

MATERIALS COLD-ROLLED STEEL SHEETS: ASTM A 1008/A 1008M, SUITABLE FOR EXPOSED APPLICATIONS HOT-ROLLED STEEL SHEETS: ASTM A 1011/A 1011M, FREE OF SCALE, PITTING, OR SURFACE DEFECTS. METALLIC-COATED STEEL SHEET: ASTM A 653/A 653M, WITH G40A40 METALLIC COATING ETAIN FIRST PARAGRAPH BELOW, DESCRIBING ELECTROLYTIC ZINC-COATED STEEL, FOR FRAME ANCHORS ONLY

FRAME ANCHORS: ASTM A 591/A 591M, 40Z COATING DESIGNATION: MILL PHOSPHATIZED. FOR ANCHORS BUILT INTO EXTERIOR WALLS, SHEET STEEL COMPLYING WITH ASTM A 1008/A 1008M OR ASTM A 1011/A 1011M, HOT-DIP NIZED ACCORDING TO ASTM A 153/A 153M, CLASS B. USE CONCEALED EASTENERS FOR ALL FRAMES

INSERTS, BOLTS, AND FASTENERS: HOT-DIP GALVANIZED ACCORDING TO ASTM A 153/A 153M. HOLLOW METAL DOORS AND FRAMES PRODUCTS

RETAIN FIRST SUBPARAGRAPH FOR THERMAL-RATED DOORS. VERIFY R-VALUE WITH MANUFACTURERS

HAN 4.0 DEG F X H X SQ. FT./BTU WHEN TESTED ACCORDING TO ASTM C 1363.

STEEL SHEET THICKNESS FOR INTERIOR DOORS: 0.053 INCH.

FRAME ANCHORS: NOT LESS THAN 0.042 INCH THICK.

DOOR LOUVERS: SIGHT PROOF PER SDI 1110

NSI/SDI A250.10 ACCEPTANCE CRITERIA.

INSTALLATION

TEEL SHEET THICKNESS FOR EXTERIOR DOORS: 0.067 INCH

DOOR FACE SHEETS.

PENINGS.

FRAMES.

STANDARDS.

PART 3 - EXECUTION

END OF SECTION 081113

PIONEER DOORS AND FRAMES DOORS: COMPLYING WITH ANSI 250.8 FOR LEVEL AND MODEL AND ANSI A250.4 FOR PHYSICAL-ENDURANCE LEVEL INDICATED, 1-3/4 INCHES THICK UNLESS OTHERWISE INDICATED. FULL FLUSH ALLOWS VISIBLE SEAMS ON EDGES OF DOORS; SEAMLESS DOES NOT.

FABRICATE INTERIOR FRAMES WITH MITERED OR COPED AND CONTINUOUSLY WELDED CORNERS.

FIRE-RATED AUTOMATIC LOUVERS: ACTUATED BY FUSIBLE LINKS AND LISTED AND LABELED

GROUT GUARDS: PROVIDE WHERE MORTAR MIGHT OBSTRUCT HARDWARE OPERATION.

REINFORCE DOORS AND FRAMES TO RECEIVE SURFACE-APPLIED HARDWARE

INSTALL HOLLOW METAL FRAMES TO COMPLY WITH ANSI/SDI A250.11.

FIRE-RATED FRAMES: INSTALL ACCORDING TO NFPA 80.

FRAMES: ANSI A250.8; CONCEAL FASTENINGS UNLESS OTHERWISE INDICATED. PROVIDE FIRE RATED FRAMES IN LOCATIONS OF PROTECTED

SECTION 081416 - FLUSH WOOD DOORS SECTION REQUIREMENT SUBMITTALS: SAMPLES FOR FACTORY-FINISHED DOORS. QUALITY STANDARD: WDMA I.S.1-A. FIRE-RATED WOOD DOORS: LABELED BY A TESTING AND INSPECTING AGENCY ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION BASED ON TESTING PER NFPA 252 AT NEUTRAL PRESSURE. AT STAIRS AND EXIT PASSAGEWAYS, PROVIDE DOORS THAT HAVE A TEMPERATURE RISE RATING OF 450 DEG F VERIFY AVAILABILITY OF CERTIFICATION IN PARAGRAPH BELOW WITH MANUFACTURERS SELECTED BEFORE RETAINING. FOREST CERTIFICATION: PROVIDE DOORS PRODUCED FROM WOOD OBTAINED FROM FORESTS CERTIFIED BY AN FSC-ACCREDITED CERTIFICATION BODY TO COMPLY WITH FSC STD-01-001, "FSC PRINCIPLES AND CRITERIA FOR FOREST STEWARDSHIP." PART 2 - PRODUCTS DOOR CONSTRUCTION, GENERAL WDMA LS.1-A PERFORMANCE GRADE: HEAVY DUTY UNLESS OTHERWISE INDICATED. PARTICLEBOARD-CORE DOORS: PROVIDE STRUCTURAL COMPOSITE LUMBER CORES INSTEAD OF PARTICLEBOARD CORES FOR DOORS. FIRE-PROTECTION-RATED DOORS: PROVIDE CORE SPECIFIED OR MINERAL CORE AS NEEDED TO PROVIDE FIRE-PROTECTION RATING INDICATED. PROVIDE THE FOLLOWING FOR MINERAL-CORE DOORS: COMPOSITE BLOCKING WHERE REQUIRED TO ELIMINATE THROUGH-BOLTING HARDWARE. LAMINATED-EDGE CONSTRUCTION. FORMED-STEEL EDGES AND ASTRAGALS FOR PAIRS OF DOORS. . PHYSICAL PROPERTIES: MINIMUM VALUES UNLESS OTHERWISE INDICATED, OR HIGHER VALUES REQUIRED TO ATTAIN DESIGNATED FIRE-RESISTANCE FLUSH WOOD DOORS DOORS FOR TRANSPARENT FINISH INTERIOR SOLID-CORE DOORS: PREMIUM GRADE, SEVEN-PLY, STRUCTURAL COMPOSITE LUMBER CORES. FACES: GRADE A ROTARY-CUT SELECT WHITE BIRCH VENEER MATCHING: BOOK AND BALANCE MATCH. CONTINUOUS MATCHING FOR DOORS WITH TRANSOMS. LOUVERS AND LIGHT FRAMES 2.3

1. LATEX SEALANT, SINGLE-COMPONENT, NONSAG, MILDEW-RESISTANT, PAINTABLE, ACRYLIC-EMULSION SEALANT COMPLYING WITH ASTM C 834. H. ACOUSTICAL SEALANT[FOR EXPOSED INTERIOR JOINTS]:

INTERIOR DOORS: MODEL 1 (TYPES AS SHOWN IN THE CONSTRUCTION DOCUMENTS. METALLIC-COATED STEEL SHEET FACES. EXTERIOR DOORS: MODEL 1 (FULL FLUSH, METALLIC-COATED STEEL SHEET FACES. THERMAL-RATED (INSULATED) DOORS: WHERE INDICATED, PROVIDE DOORS WITH THERMAL-RESISTANCE VALUE (R-VALUE) OF NOT LESS HARDWARE REINFORCEMENT: FABRICATE ACCORDING TO ANSI/SDI A250.6 WITH REINFORCEMENT PLATES FROM SAME MATERIAL AS

FABRICATE EXTERIOR FRAMES FROM METALLIC-COATED STEEL SHEET, WITH MITERED OR COPED AND CONTINUOUSLY WELDED CORNERS. HARDWARE REINFORCEMENT: FABRICATE ACCORDING TO ANSI/SDI A250.6 WITH REINFORCEMENT PLATES FROM SAME MATERIAL AS

GLAZING STOPS: NON-REMOVABLE STOPS ON OUTSIDE OF EXTERIOR DOORS AND ON SECURE SIDE OF INTERIOR DOORS; SCREW-APPLIED, REMOVABLE, GLAZING STOPS ON INSIDE, FABRICATED FROM SAME MATERIAL AS DOOR FACE SHEET IN WHICH THEY ARE INSTALLED. DOOR SILENCERS: THREE ON STRIKE JAMBS OF SINGLE-DOOR FRAMES AND TWO ON HEADS OF DOUBLE-DOOR FRAMES.

PREPARE DOORS AND FRAMES TO RECEIVE MORTISED AND CONCEALED HARDWARE ACCORDING TO ANSI A250.6 AND ANSI A115 SERIES PRIME FINISH: MANUFACTURER'S STANDARD, FACTORY-APPLIED COAT OF LEAD- AND CHROMATE-FREE PRIMER COMPLYING WITH

INSTALL DOORS TO PROVIDE CLEARANCES BETWEEN DOORS AND FRAMES AS INDICATED IN ANSI/SDI A250.11. PRIME-COAT TOUCHUP: IMMEDIATELY AFTER ERECTION, SAND SMOOTH RUSTED OR DAMAGED AREAS OF PRIME COAT AND APPLY OUCHUP OF COMPATIBLE AIR-DRYING RUST-INHIBITIVE PRIMER. USE GALVANIZING REPAIR PAINT FOR METALLIC COATED SURFACES.

2.3	LOUVERS AND LIGHT FRAMES
A.	LIGHT FRAMES: WOOD BEADS OF SAME SPECIES AS DOOR FACES. 1. AT FIRE-RATED DOORS PROVIDE WOOD-VENEERED BEADS APPROVED FOR USE IN DOORS OF FIRE-PROTECTION RATING
	INDICATED.
2.4	FABRICATION AND FINISHING FACTORY FIT DOORS TO SUIT FRAME-OPENING SIZES INDICATED AND TO COMPLY WITH CLEARANCES SPECIFIED.
А. В.	FACTORY FIT DOORS TO SUIT FRAME-OFENING SIZES INDICATED AND TO COMPLET WITH CLEARANCES SPECIFIED. FACTORY MACHINE DOORS FOR HARDWARE THAT IS NOT SURFACE APPLIED. LOCATE HARDWARE TO COMPLY WITH DHI-WDHS-3.
C.	CUT AND TRIM OPENINGS TO COMPLY WITH REFERENCED STANDARDS.
	1. TRIM LIGHT OPENINGS WITH MOLDINGS INDICATED D
	 FACTORY INSTALL GLAZING IN DOORS INDICATED TO BE FACTORY FINISHED. FACTORY INSTALL LOUVERS IN PREPARED OPENINGS.
RETAININ	IG REQUIREMENTS IN PARAGRAPH BELOW WILL HELP IMPROVE INDOOR AIR QUALITY BY LOWERING THE USE OF VOC'S AT THE PROJECT SITE.
D.	FACTORY FINISH DOORS INDICATED FOR TRANSPARENT FINISH WITH STAIN AND MANUFACTURER'S STANDARD FINISH COMPLYING WITH WDMA
PART 3 -	R-4, CONVERSION VARNISH FOR GRADE SPECIFIED FOR DOORS. EXECUTION
3.1	INSTALLATION
Α.	INSTALL DOORS TO COMPLY WITH MANUFACTURER'S WRITTEN INSTRUCTIONS, WDMA I.S.1-A AND AS INDICATED.
	INSTALL FIRE-RATED DOORS TO COMPLY WITH NFPA 80. INSTALL FIRE-RATED DOORS TO COMPLY
B.	ALIGN AND FIT DOORS IN FRAMES WITH UNFORM CLEARANCES AND BEVELS, MACHINE DOORS FOR HARDWARE, SEAL CUT SURFACES AFTER
	AND MACHINING.
C.	CLEARANCES: AS FOLLOWS, UNLESS OTHERWISE INDICATED:
	 1/8 INCH AT HEADS, JAMBS, AND BETWEEN PAIRS OF DOORS. 1/8 INCH FROM BOTTOM OF DOOR TO TOP OF DECORATIVE FLOOR FINISH OR COVERING.
	3. 1/4 INCH FROM BOTTOM OF DOOR TO TOP OF THRESHOLD.
	4. COMPLY WITH NFPA 80 FOR FIRE-RATED DOORS.
DELETE F D.	ARAGRAPH BELOW IF FACTORY FINISHING WAS NOT RETAINED IN PART 2. REPAIR, REFINISH, OR REPLACE FACTORY-FINISHED DOORS DAMAGED DURING INSTALLATION, AS DIRECTED BY ARCHITECT.
	SECTION 081416
SECTION	977100 DOOD UADDWADD
PART 4 -	087100 - DOOR HARDWARE GENERAL
4.1	SECTION REQUIREMENTS
	IRST PARAGRAPH BELOW IF AN ALLOWANCE IS USED.
А. В.	ALLOWANCES: PROVIDE HARDWARE UNDER HARDWARE ALLOWANCE IN DIVISION 01 SECTION "PRICE AND PAYMENT PROCEDURES." SUBMITTALS: HARDWARE SCHEDULE AND KEYING SCHEDULE.
C.	DELIVER KEYS TO OWNER. COORDINATE WITH OWNER ON MASTER KEYING TO COORDINATE WITH EXISTING LOCKING SYSTEMS.
D.	FIRE-RESISTANCE-RATED ASSEMBLIES: PROVIDE PRODUCTS THAT COMPLY WITH NFPA 80 AND ARE LISTED AND LABELED BY A TESTING AND
	NG AGENCY ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION FOR APPLICATIONS INDICATED. ON EXIT DEVICES PROVIDE LABEL INDICATING I HARDWARE."
PART 5 -	
5.1	HARDWARE
A.	
1. B.	AS NOTED ON DRAWINGS. COORDINATE WITH OWNER'S LOCKSMITH. HINGES:
	ICM OPTIONS IN FIVE SUBPARAGRAPHS BELOW.
1.	STAINLESS-STEEL HINGES WITH STAINLESS-STEEL PINS FOR EXTERIOR.
2.	NONREMOVABLE HINGE PINS FOR EXTERIOR AND PUBLIC INTERIOR EXPOSURE.
3. 4.	BALL-BEARING HINGES FOR DOORS WITH CLOSERS AND ENTRY DOORS. 2 HINGES FOR 1-3/8-INCH- THICK WOOD DOORS.
5.	3 HINGES FOR 1-3/4-INCH- THICK DOORS 90 INCHES OR LESS IN HEIGHT; 4 HINGES FOR DOORS MORE THAN 90 INCHES IN HEIGHT.
C.	LOCKSETS AND LATCHSETS:
1. 2.	BHMA A156.2, SERIES 4000, GRADE 3 FOR BORED LOCKS AND LATCHES. BHMA A156.3, GRADE 1 FOR EXIT DEVICES.
3.	BHMA A156.5, GRADE 2 FOR AUXILIARY LOCKS.
4.	BHMA A156.12, SERIES 5000, GRADE 2 FOR INTERCONNECTED LOCKS AND LATCHES.
5. 6.	BHMA A156.13, SERIES 1000, GRADE 2 FOR MORTISE LOCKS AND LATCHES. ADA COMPLIANT LEVER HANDLES ON LOCKSETS AND LATCHSETS.
7.	PROVIDE TRIM ON EXIT DEVICES MATCHING LOCKSETS.
D.	KEY LOCKS TO OWNER'S EXISTING MASTER-KEY SYSTEM.
1.	CYLINDERS WITH SIX-PIN TUMBLERS AND REMOVABLE CORES.
2. 3.	PROVIDE CONSTRUCTION KEYING. PROVIDE KEY CONTROL SYSTEM, INCLUDING CABINET.
E.	CLOSERS:
	ROM OPTIONS IN TWO SUBPARAGRAPHS BELOW.
1. ARM OF	MOUNT CLOSERS ON INTERIOR SIDE (ROOM SIDE) OF DOOR OPENING, UNLESS INDICATED OTHERWISE. PROVIDE REGULAR-ARM, PARALLEL- 2 TOP-JAMB-MOUNTED CLOSERS AS NECESSARY.
2.	ADJUSTABLE DELAYED OPENING (ACCESSIBLE TO PEOPLE WITH DISABILITIES) FEATURE ON CLOSERS.
F.	PROVIDE WALL STOPS OR FLOOR STOPS FOR DOORS WITHOUT CLOSERS, IVES 407 ½.
G.	PROVIDE HARDWARE FINISHES AS SHOWN ON THE CONSTRUCTION DOCUMENTS.
PART 6 -	EXECUTION
6.1	INSTALLATION
A.	MOUNT HARDWARE IN LOCATIONS RECOMMENDED BY THE DOOR AND HARDWARE INSTITUTE UNLESS OTHERWISE INDICATED.
END OF	SECTION 087100
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PART 1 -	088000 - GLAZING GENERAL
1.1	SECTION REQUIREMENTS
Α.	SUBMITTALS: [PRODUCT DATA] [AND] [12-INCH- SQUARE SAMPLES].
B.	FIRE-RESISTANCE-RATED ASSEMBLIES: PROVIDE PRODUCTS THAT COMPLY WITH NFPA 80 AND ARE LISTED AND LABELED BY A TESTING AND NG AGENCY ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION FOR APPLICATIONS INDICATED.
C.	SAFETY GLASS: CATEGORY II MATERIALS COMPLYING WITH TESTING REQUIREMENTS IN 16 CFR 1201 AND ANSI 297.1.
D.	GLAZING PUBLICATIONS: COMPLY WITH PUBLISHED RECOMMENDATIONS OF GLASS PRODUCT MANUFACTURERS AND ORGANIZATIONS
BELOW,	UNLESS MORE STRINGENT REQUIREMENTS ARE INDICATED.
	1. GANA PUBLICATIONS: [GANA LAMINATED DIVISION'S "LAMINATED GLASS DESIGN GUIDE" AND]GANA'S "GLAZING MANUAL."

GANA PUBLICATIONS: [GANA LAMINATED DIVISION'S "LAMINATED GLASS DESIGN GUIDE" AND 1GANA'S "GLAZING MANUAL AAMA PUBLICATIONS: AAMA GDSG-1, "GLASS DESIGN FOR SLOPED GLAZING"; AND AAMA TIR-A7, "SLOPED GLAZING GUIDELINES." IGMA PUBLICATION FOR SLOPED GLAZING: IGMA TB-3001, "SLOPED GLAZING GUIDELINES." IGMA PUBLICATION FOR INSULATING GLASS: SIGMA TM-3000, "GLAZING GUIDELINES FOR SEALED INSULATING GLASS UNITS." NOT ALL MANUFACTURERS PARTICIPATE IN PROGRAM REFERENCED IN PARAGRAPH BELOW: REFER TO DIRECTORIES OF CERTIFYING ORGANIZATIONS FOR PARTICIPANTS. INSULATING-GLASS CERTIFICATION PROGRAM: PERMANENTLY MARKED WITH CERTIFICATION LABEL OF INSULATING GLASS CERTIFICATION COUNCIL[AND ASSOCIATED LABORATORIES, INC]. PART 2 - PRODUCTS GLASS

COPY AND EDIT EACH OF SEVEN PARAGRAPHS IN THIS ARTICLE AS NECESSARY FOR TYPES OF GLASS REQUIRED. FOR TINTED OR COATED GLASS TYPES, INDICATE COLOR. FLOAT GLASS: ASTM C 1036, TYPE I,CLASS 1 (CLEAR) AND QUALITY Q3. ALL GLASS TO BE TEMPERED. PART 3 - EXECUTION

COMPLY WITH COMBINED RECOMMENDATIONS OF MANUFACTURERS OF GLASS, SEALANTS, GASKETS, AND OTHER GLAZING MATERIALS, UNLESS MORE STRINGENT REQUIREMENTS ARE CONTAINED IN GANA'S "GLAZING MANUAL." SET GLASS LITES IN EACH SERIES WITH UNIFORM PATTERN, DRAW, BOW, AND SIMILAR CHARACTERISTICS. REMOVE NONPERMANENT LABELS, AND CLEAN SURFACES IMMEDIATELY AFTER INSTALLATION.

A. SL

END OF SECTION 088000

SECTION 092900 - GYPSUM BOARD
PART 16 - GENERAL
16.1 SECTION REQUIREMENTS
A, SUBMITTALS; PRODUCT DATA.
B. FIRE-RESISTANCE-RATED ASSEMBLIES: PROVIDE MATERIALS AND CONSTRUCTION IDENTICAL TO THOSE TESTED IN ASSEMBLIES PER ASTM E 119 BY AN
INDEPENDENT TESTING AND INSPECTING AGENCY ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION.
C. STC-RATED ASSEMBLIES: PROVIDE MATERIALS AND CONSTRUCTION IDENTICAL TO THOSE TESTED IN ASSEMBLIES PER ASTM E 90 AND CLASSIFIED PER
ASTM E 413 BY A QUALIFIED INDEPENDENT TESTING AND INSPECTING AGENCY.
PART 17 - PRODUCTS
17.1 PANEL PRODUCTS
A. PROVIDE IN MAXIMUM LENGTHS AVAILABLE TO MINIMIZE END-TO-END BUTT JOINTS.
B. INTERIOR GYPSUM BOARD: ASTM C 36/C 36M OR ASTM C 1396/C 1396M, IN THICKNESS INDICATED, WITH MANUFACTURER'S STANDARD EDGES. TYPE 'X'
UNLESS OTHERWISE INDICATED.
1. PRODUCT: G-P GYPSUM; DENS-SHIELD.
2. EQUAL PRODUCTS AS APPROVED BY THE ARCHITECT.
2. EXTERIOR GYPSIUM SOFFIT BOARD: ASTM C 931M OR ASTM C 1396/C 1396M, IN THICKNESS INDICATED, WITH MANUFACTURER'S STANDARD
EDGES. TYPE 'X' UNLESS OTHERWISE INDICATED.
1. PRODUCT: G-P GYPSUM; DENS-GLASS.
2. EQUAL PRODUCTS AS APPROVED BY THE ARCHITECT.
D, WATER-RESISTANT GYPSUM BACKING BOARD: ASTM C 630/C 630M OR ASTM C 1396/C 1396M, IN THICKNESS INDICATED. REGULAR TYPE UNLESS
1. PRODUCT: G-P GYPSUM; WATER-RESISTANT.
E. GLASS-MAT, WATER-RESISTANT GYPSUM BACKING BOARD: ASTM C 1178/C 1178M, OF THICKNESS INDICATED. REGULAR TYPE UNLESS OTHERWISE
1. PRODUCT: G-P GYPSUM; DENS-SHIELD TILE GUARD.
F. CEMENTITIOUS BACKER UNITS: ANSI A118.9.
A. TRIM ACCESSORIES: ASTM C 1047, FORMED FROM GALVANIZED OR ALUMNIUM-COATED STEEL SHEET, ROLLED ZINC, PLASTIC, OR PAPER-FACED
GALVANIZED-STEEL SHEET, FOR EXTERIOR TRIM, USE ACCESSORIES FORMED FROM HOT-DIP GALVANIZED-STEEL SHEET, PLASTIC, OR ROLLED ZINC.
1. PROVIDE CORNERBEAD AT OUTSIDE CORNERS UNLESS OTHERWISE INDICATED.
2. PROVIDE LC-BEAD (J-BEAD) AT EXPOSED PANEL EDGES.
3. PROVIDE CONTROL JOINTS WHERE INDICATED.
B. ALUMINUM ACCESSORIES: EXTRUDED-ALUMINUM ACCESSORIES INDICATED WITH MANUFACTURER'S STANDARD CORROSION-RESISTANT PRIMER.
C. JOINT-TREATMENT MATERIALS: ASTM C 475/C 475/M.
1. JOINT TAPE: PAPER UNLESS OTHERWISE RECOMMENDED BY PANEL MANUFACTURER.
2. JOINT COMPOUNDS: SETTING-TYPE COMPOUNDS, DRYING-TYPE, READY-MIXED, ALL-PURPOSE COMPOUNDS, READY-MIXED, COMPOUNDS FOR
TOPPING, USE SETTING-TYPE COMPOUNDS AT EXTERIOR SOFFITS.
3. CEMENTITIOUS BACKER UNIT JOINT-TREATMENT MATERIALS: PRODUCTS RECOMMENDED BY CEMENTITIOUS BACKER UNIT MANUFACTURER.
D. ACOUSTICAL SEALANT FOR EXPOSED AND CONCEALED JOINTS: NONSAG, PAINTABLE, NONSTAINING LATEX SEALANT COMPLYING WITH ASTM C 834.
E. SOUND-ATTENUATION BLANKETS: ASTM C 665, TYPE I (UNFACED).
PART 18 - EXECUTION
18.1 INSTALLATION
A. INSTALL GYPSUM BOARD TO COMPLY WITH ASTM C 840.
1. ISOLATE GYPSUM BOARD ASSEMBLIES FROM ABUTTING STRUCTURAL AND MASONRY WORK. PROVIDE EDGE TRIM AND ACOUSTICAL SEALANT.
2. SINGLE-LAYER FASTENING METHODS: FASTEN GYPSUM PANELS TO SUPPORTS WITH SCREWS.
3. MULTILAYER FASTENING METHODS: FASTEN BASE LAYERS AND FACE LAYER SEPARATELY TO SUPPORTS WITH SCREWS.
B. INSTALL CEMENTITIOUS BACKER UNITS TO COMPLY WITH ANSI A108.11.
C. FIRE-RESISTANCE-RATED ASSEMBLIES: COMPLY WITH REQUIREMENTS OF LISTED ASSEMBLIES.
D. FINISHING GYPSUM BOARD: ASTM C 840.
1. AT CONCEALED AREAS, UNLESS A HIGHER LEVEL OF FINISH IS REQUIRED FOR FIRE-RESISTANCE-RATED ASSEMBLIES, PROVIDE LEVEL 1 FINISH: EMBED TAPE
TAI JOINTS.
2. AT SUBSTRATES FOR TILE, PROVIDE LEVEL 2 FINISH: EMBED TAPE AND APPLY SEPARATE FIRST COAT OF JOINT COMPOUND TO TAPE, FASTENERS, AND TRIM
FLANGES.
LEVEL 4 IS SUITABLE FOR SURFACES RECEIVING LIGHT-TEXTURED FINISH WALLCOVERINGS AND FLAT PAINTS. IT IS GENERALLY THE STANDARD EXPOSED
FINISH.
3. UNLESS OTHERWISE INDICATED, PROVIDE LEVEL 4 FINISH: EMBED TAPE AND APPLY SEPARATE FIRST, FILL, AND FINISH COATS OF JOINT COMPOUND TO
TAPE, FASTENERS, AND TRIM FLANGES.
LEVEL 5 IS SUITABLE FOR SURFACES RECEIVING GLOSS AND SEMIGLOSS ENAMELS AND SURFACES SUBJECT TO SEVERE LIGHTING. IT IS CONSIDERED A HIGH-

OUND TO SEMIGLOSS ENAMELS AND SURFACES SUBJECT TO SEVERE LIGHTING. IT IS CONSIDERED A HIGH-QUALITY GYPSUM BOARD FINISH. 4. WHERE INDICATED, PROVIDE LEVEL 5 FINISH: EMBED TAPE AND APPLY SEPARATE FIRST, FILL, AND FINISH COATS OF JOINT COMPOUND TO TAPE, FASTENERS, AND TRIM FLANGES. APPLY SKIM COAT TO ENTIRE SURFACE. E. GLASS-MAT, WATER-RESISTANT BACKING PANELS: FINISH ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS. F. CEMENTITIOUS BACKER UNITS: FINISH ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS

G. TEXTURE FINISH APPLICATION: MIX AND APPLY FINISH USING POWERED SPRAY EQUIPMENT, TO PRODUCE A UNIFORM TEXTURE FREE OF STARVED SPOTS OR OTHER EVIDENCE OF THIN APPLICATION OR OF APPLICATION PATTERNS. END OF SECTION 092900

NUMBER WIDTH HEIGHT DOOR TYPE 100 3'-0'' 7'-0'' 102 3'-0'' 7'-0'' 104 3'-0" 7'-0" 3'-0'' 7'-0'' 106

DOOR

MATERIAI

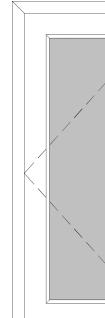
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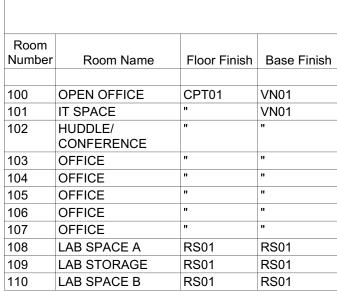
HARDWARE SCHEDULE **TYPE 1 - ENTRY** LOCKSET: EXISTING TO REMAIN





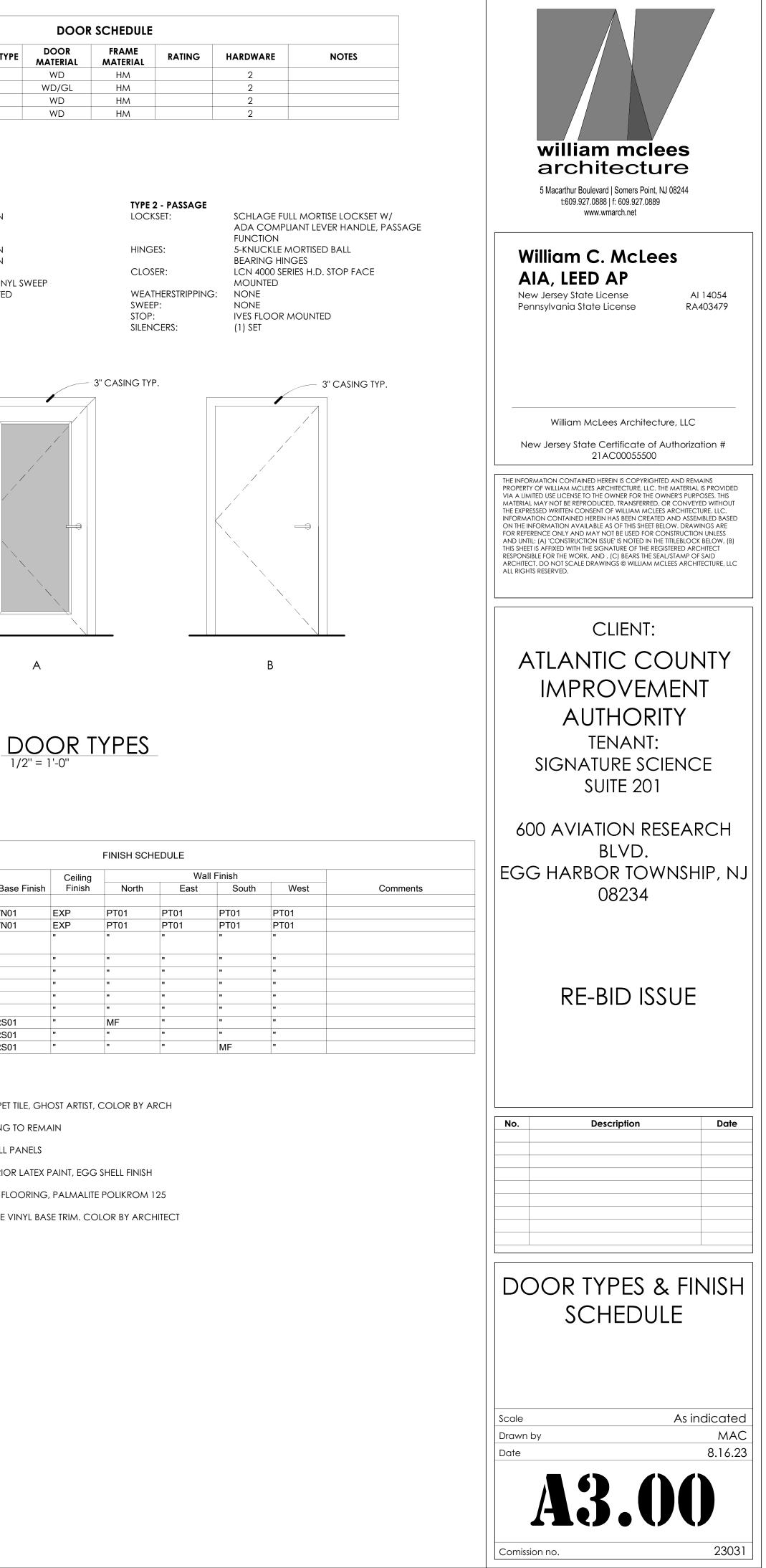
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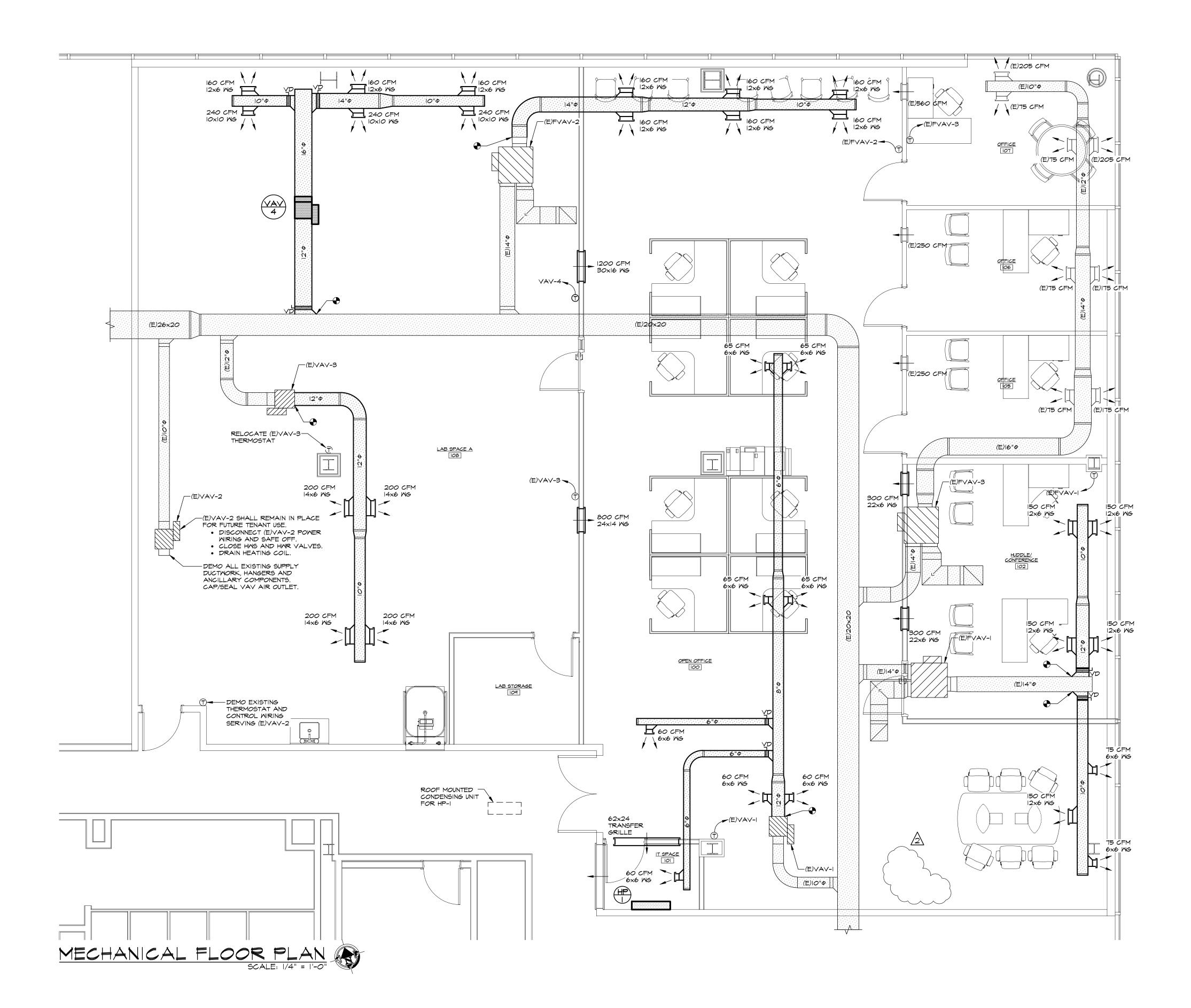
EXP



LIST OF FINISHES

CPT01	MILIKEN MODULAR CARPET TILE, GHOST
EXP	EXISTING EXPOSED CEILING TO REMAIN
MF	MODULAR FOLDING WALL PANELS
PTO1	PRIME & (2) COATS INTERIOR LATEX PAIN
RSO1	FLUID APPLIED RESINOUS FLOORING, PA
VN01	JOHNSONITE 4" COVE TILE VINYL BASE TR

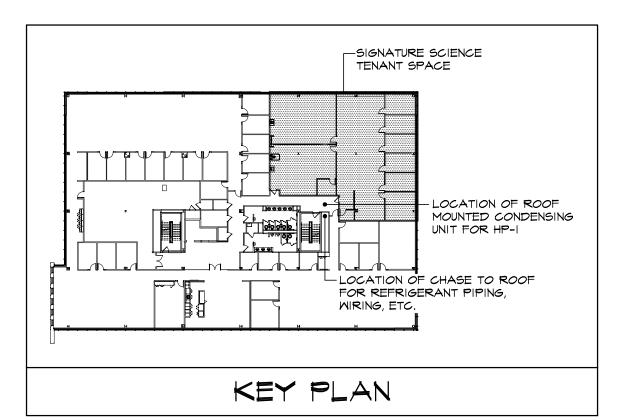




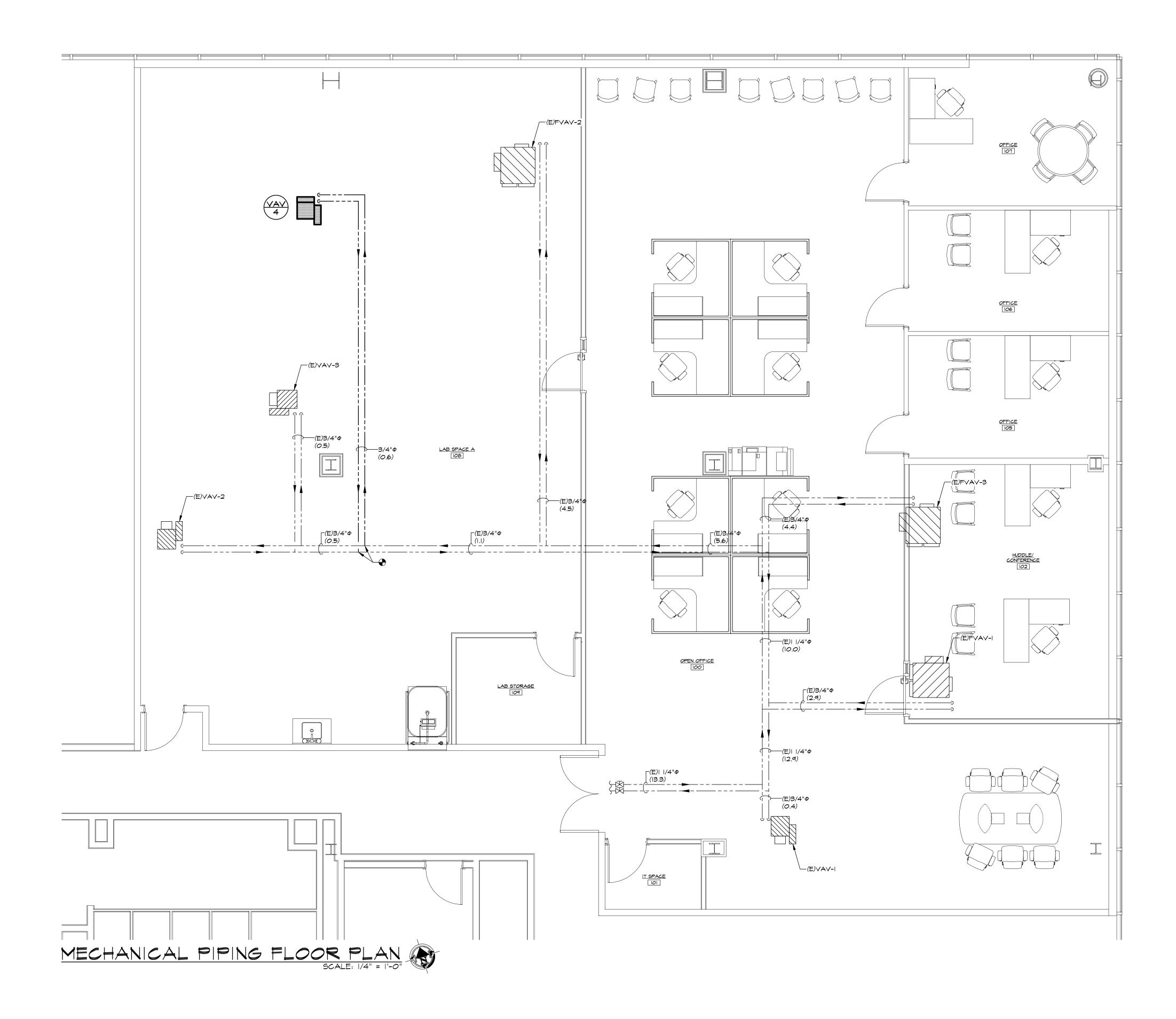
	LEGEND
	SUPPLY AIR DUCTWORK
	RETURN AIR DUCTWORK
4	NEW DUCTWORK
<u> </u>	EXIST. DUCTWORK TO BE REUSED
v∄ ₹	45° ENTRY TYPE BRANCH TAKEOFF WITH VOLUME DAMPER
v	D VOLUME DAMPER
	DOOR UNDERCUTTING OR LOUVER
	THERMOSTAT
Ð	CONNECTION POINT BETWEEN NEW AND EXISTING
4	ABBREVIATIONS
CFM	CUBIC FEET PER MINUTE
(E)	EXISTING TO REMAIN UNLESS OTHERWISE NOTED
HWR	HOT WATER RETURN
HWS	HOT WATER SUPPLY
NK	NECK SIZE OF AIR TERMINAL
OA	OUTSIDE AIR
WG	WALL GRILLE
WR	WALL RETURN

NOTES:

- I. EXTEND CONDENSATE FROM HEAT PUMP (HP-I) TO MOP SINK LOCATED IN JANITOR-204.
- 2. LOCATE HP-I OUTDOOR UNIT ON ROOF. ROUTE REFRIGERANT PIPING INTO EAST CHASE-209, UP THROUGH ROOF.



NJ PROFESSIONAL ENGINEER No. 24GE03895900		BILLC NY PROFESSIONAL ENGINEER No. 088381 MD PROFESSIONAL ENGINEER No. 088381 MD PROFESSIONAL ENGINEER No. 088381 B/24/2023 - REVIEW/COORDINATION		0/21/2023 - ADDENDUM No. 1	Daniel A. Loveland Sr., P.E.		
	1000 1000 1000 1000 1000 1000 1000 100	Solution and Design LLC	ĔIO B	ct <i>r</i>]	Ca/		
MECHANICAL ELOOD DI AN		FOR	SIGNATURE SCIENCE		SITUATED AT	600 AVIATION RESEARCH BLVD.	EGG HARBOR TOWNSHIP. NJ 08234
		9/5/2023					



			AND DESIGN LLC	COPTHIGH AND RIGHTS IN THESE GS. SPECIFICATION)F AHE AND SHALL OF MPE CONSULTING ESS THIS PLAN HAS	OF THE LICENSED PONSIBLE FOR THE T RE CONSIDERED	MENT. THESE PLANS RODUCED, NOR ARE VED TO ANY THIRD	ist oblianing the N Permission and Lting and design LLC
<u> </u>	PING		DNT NG Y		DERTY C UNL			CONSU CONSU
١.	PIPING SHALL BE RIGIDLY SUPPORTED AT INTERVALS OF NOT MORE THAN 10 FEET.		NSUL NSUL NSUL					
2.	CONTRACTOR TO PROVIDE MANUAL AIR VENTS AT ALL HIGH POINTS OF PIPING.		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	N P P R				RESS SENT O
З.	PROVIDE DIELECTRIC UNIONS IN PIPING WHERE DISSIMILAR METALS ARE JOINED TOGETHER.		Щ Х (Ш Х (HE A	ABA	T T S S S S S S S S S S S S S S S S S S
4.	THE DRAWINGS ARE GENERALLY DIAGRAMMATIC AND DUE TO THE SMALL SCALE OF THE DRAWINGS IT IS NOT POSSIBLE TO INDICATE ALL FITTINGS, VALVES, VENT PIPING AND SPECIALTIES REQUIRED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING COMPLETE OPERATING SYSTEMS AND SHALL FURNISH ALL NECESSARY FITTINGS AND SPECIALTIES WHETHER INDICATED OR NOT.		REVIEW/COORDINATION	REVIEW/COORDINATION		No. 1	ENGINEERING	
5.	THE SIZE OF ALL PIPING SHALL BE AS SHOWN ON THE DRAWINGS.		NDIA	IIGRO		N N	NGIN	
6.	CHANGE OF PIPE SIZES ON HORIZONTAL RUNS SHALL BE MADE WITH ECCENTRIC REDUCERS WITH TOP OF PIPE LEVEL.		W/COC	W/C00	G	ADDENDUM	VALUE E	
٦.	PROVIDE A MINIMUM THREE (3) ELBOW SWING FOR ALL PIPE TAKE-OFFS.		EVIE	EVIE	BIDDING	· ·	>	
8.	PROVIDE VALVE WITH HOSE END ON ALL LOW POINTS OF PIPING SYSTEMS.	NOIS	т	ı	8	2023	2023	
9.	HYDRONIC PIPING SHALL BE TYPE "L" HARD DRAWN COPPER UP TO 2" IN DIAMETER AND SCHEDULE 40 BLACK STEEL FOR 2 1/2" DIAMETER AND LARGER.	NOISSIMBNS	8/10/2023	8/24/2023	9/5/2023	9/21/2023	2 1/10/2023	
10.	PROVIDE BALANCING VALVES AT SYSTEM LOOP RETURNS AND AT RETURN RISERS. PROVIDE SHUTOFF VALVES AT SYSTEM LOOP SUPPLIES AND SUPPLY RISERS.		8	8	6			
11.	 VALVE AND ACCESSORIES: A. <u>GATE</u> (COPPER TUBING): NIBCO SCOTT S-III. B. <u>BALL</u> (COPPER TUBING): NIBCO SCOTT T-590-Y C. <u>GLOBE AND ANGLE</u>: NIBCO SCOTT - 2II D. <u>COMBINATION SHUTOFE AND BALANCING</u>: ARMSTRONG "CIRCUIT BALANCING" CRV-I. FURNISH A PORTABLE DIFFERENTIAL PRESSURE METER WITH HOSES TO BE USED DURING BALANCING OF SYSTEMS.DELIVER METER TO OWNER AT PROJECT CLOSE-OUT. 	Vo. 24GE03895900	t No. PE075142 No. 17464	1 No. 088381 1 No. 36281 1 No. 0034563	No. 71354	(-	eland Sr., P.E	1
12.	ALL COPPER PIPING SHALL BE JOINED USING 95-5 TIN/ANTIMONY SOLDER.		NEEA	ENGINEER ENGINEER ENGINEER			×0	
PIF	PING INSULATION		eng Eng		ENGI	-	Ľ	
۱.	PRIOR TO INSULATING, PIPING SHALL BE HYDROSTATICALLY TESTED AT 100 PSIG WITH NO LOSS OF PRESSURE FOR A 3 HOUR DURATION.	AL	NAL		NAL		خ 	
2.	INSULATION SHALL CARRY THROUGH ALL WALL PENETRATIONS AND PIPE HANGERS.	OFES	OFES	PROFESSIO	OFES	.	aniel eed A-P	
З.	PROVIDE GALVANIZED METAL SHIELDS FORMED TO FIT THE INSULATION BETWEEN HANGERS AND FINISHED INSULATIONS.	NJ PR	PA PA DE PR	K S M S M S M S S M S S S S S S S S S S	54	1	Dan Leed	DATE
4.	EXCEPT AS OTHERWISE NOTED, INSULATE THE FOLLOWING WITH MANVILLE, "MICRO-LOK" AP INSULATION (PROVIDE ZESTON PVC FITTING COVERS), OR EQUAL.		ζ	ې				
	A. HEATING AND CHILLED WATER I. UP TO 2" DIAMETER I" THICK 2. 2 I/2" TO 4" DIAMETER I I/2" THICK 3. 5" DIAMETER AND LARGER 2" THICK		 - -	g and Design LI	o• 24GA	Pike, Suite 3 94	ш	

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SCIENCE

SIGNATURE

RCH BLVD. P, NJ 0823

600 AVIATION EGG HARBOR TC

AN

MECHANICAL PIPING FLOOR PL

DWG NO.

M2

	VAV BOX SCHEDULE (VAV)																								
			MAX.	MIN.											HOT 1	NATER H	HEAT DA	TA					SOUNI	>	
TAG	MANUFACTURE MODEL NO.	SIZE	PRIMARY CFM	PRIMARY CFM	INLET SP IN MC	MIN SP IN WC	DOWN SP IN WC	ARRANGEMENT	МСА	MSCP	HEAT CFM	EAT °F	LAT °F	APD IN WC	МВН	GPM	EMT °F	LMT °F	MPD FT WC	ROWS	FPI	RAD NC	DIS NC	ATTEN METHOD	REMARKS
	KRUEGER LMHS	12	1200	400	I	0.29	0.25	RH CONTROLS/ RH COIL	6.77	15	400	55	95	0.23	17.4	4.0	130.0	121.3	1.24	2	10	16	4	AHRI-885	SEE NOTES

<u>NOTES:</u> I. PROVIDE WITH THE FOLLOWING FACTORY OPTIONS/ACCESSORIES:

- I/2" DUAL DENSITY LINER 20 GAUGE CASING WITH ACCESS PANEL
- DIRECT DIGITAL CONTROL, BACnet COMPATIBLE
- · 120-24 VAC TRANSFORMER DISCONNECT FOR CONTROLS
- WATER COIL VENT AND DRAIN

UNIT	MANUFACTURE MODEL NO. INDOOR	COOLING CAPACIT BTUH
	SAMSUNG ARO9CSDABWKNCV	ष,०००

NOTES:

- I. PROVIDE LOCKABLE METAL, VENTED, THERMOSTAT COVERS FOR ALL THERMOSTATS. 2. INDOOR UNITS RECEIVE POWER FROM OUTDOOR UNIT THROUGH FIELD
- SUPPLIED INTERCONNECTED WIRING.
- 3. PROVIDE CONDENSATE PUMP MODEL #ASP-MO-UNIV 110-250. 4. STANDARD UNIT SHALL BE CAPABLE OF 100% COOLING CAPACITY AT
- O°F OUTSIDE AIR TEMPERATURE.

			TION RA	te sch			
ZONE	<u>RM. #</u>	<u>PEOPLE OA</u> <u>CFM/PERSON</u> X (Rp)	ZONE POPULATION + (Pz)	<u>AREA OA</u> <u>CFM/SF</u> X (Ra)	<u>ZONE SF</u> <u>FLOOR AREA</u> = (A2)	<u>AIRFLOW</u> <u>BREATHING ZONE</u> (Vbz) CFM	EXHAUST AIR _CFM
(E)FVAV-2/(E)VAV	·_						
OPEN OFFICE	100	5	5	0.06	1564	II9 CFM	
			-		TOTAL	II9 CFM	
ZONE OUTDOOR AIR FL SYSTEM OUTDOOR AIR MINIMUM SET POINT SH,	FLOW (Vot	= Voz): 119 CFM Vot =	•	ING AND COOLIN	NG)		
(E)FVAV-1							
HUDDLE/CONFERENCE	102	5	10	0.06	226	64 CFM	
OFFICE	103	5	1	0.06	150	14 CFM	
OFFICE	104	5	I	0.06	150	14 CFM	
					TOTAL	92	
SYSTEM OUTDOOR AIR MINIMUM SET POINT SHA (E)FVAV-3 OFFICE		<u>CFM</u> 5	42 √oz	0.06	150	14 CFM	
OFFICE	106	5	I	0.06	150	14 CFM	
OFFICE	107	5		0.06	180	I6 CFM	
					TOTAL	44 CFM	
ZONE OUTDOOR AIR FL SYSTEM OUTDOOR AIR MINIMUM SET POINT SH, (E)VAV-3	FLOW (Vot	= Voz): 44 CFM Vot =		ING AND COOLII	NG)		
LAB SPACE A	108	5	5	0.06	895	79 CFM	
LAB STORAGE	109			0.12	80	IO CFM	
					TOTAL	89 CFM	
ZONE OUTDOOR AIR FL SYSTEM OUTDOOR AIR MINIMUM SET POINT SH	FLOW (Vot :	= Voz): 89 CFM Vot =		ING AND COOLII	NG)		
VAV-4							
LAB SPACE B	110	5	5	0.06	815	73 CFM	
			·		TOTAL	73 CFM	
ZONE OUTDOOR AIR FL SYSTEM OUTDOOR AIR MINIMUM SET POINT SH,	FLOW (Vot	= Voz): 73 CFM Vot =		ING AND COOLIN	NG)		

1	DIFF	USERS	AND	
				_

CONTRACTOR SHALL PROVIDE THE FOLLOWING DIFFUSERS AND GRILLES OR EQUAL:

- MG TITUS MODEL S300FL, DOUBLE DEFLECTION SET () O° DEFLECTION PROVIDE WITH OPTIONAL EXTRACTOR MODEL ASD AIR SCOOP DEVICE
- NOTES:
- 2. SIZES & CFM RATINGS SHALL BE AS SHOWN ON THE DRAWINGS. 3. VERIFY & PROVIDE BORDER TYPE REQUIRED FOR ALL DIFFUSERS
- AND GRILLES LOCATIONS 4. CONTRACTOR SHALL PROVIDE INCREASER/DECREASER AT POINT OF
- CONNECTION WHERE PLAN INDICATES BRANCH DUCT SIZES OTHER THAN AS SPECIFIED IN SCHEDULE.

DUCTLESS SPLIT SYSTEM SCHEDULE

HEATING CAPACITY	CFM	POWER		NDOOR		SEER2	HGRED	Por	NER	- <i>O</i> UTDO	00R	REMARKS
BTUH	LOW-HIGH	VOLT	Φ	WATTS	MODEL NO. OUTDOOR			VOLT	Φ	MCA	MOCP	
11,000	251-392	208	I	27	SAMSUNG ARO9CSDACMKXCV	24.5	10.5	208	I	12.0	20	SEE NOTES

5. CONTRACTOR SHALL PROVIDE A WATER-LEVEL DETECTION DEVICE CONFORMING TO UL 508 SHALL BE PROVIDED THAT WILL SHUT OFF THE EQUIPMENT SERVED IN THE EVENT THAT THE PRIMARY DRAIN IS BLOCKED. THE DEVICE SHALL BE INSTALLED IN THE EQUIPMENT SUPPLIED DRAIN PAN LOCATED AT A POINT HIGHER THAN THE PRIMARY DRAIN LINE CONNECTION AND BELOW THE OVERFLOW RIM OF SUCH PAN.

6. PROVIDE WITH ADVANCED WIRED CONTROLLER MODEL #MWR-WGOOUN AND WIRED CONTROLLER SUB-PCB MODEL #MIM-AOOUN.

VAV SEQUENCE OF O

<u>SEQUENCE OF OPERATION GUIDELINE</u> PROVIDE THE FOLLOWING FOR ALL AIR TERMINAL UNIT BOXES WITH HOT WATER REHEAT.

UNIT PRIMARY AIR VALVE SHALL MODULATE IN RESPONSE TO ROOM MOUNTED THERMOSTAT AND SHALL MAINTAIN AIRFLOW IN RELATIONSHIP TO THE THERMOSTAT. AN AIRFLOW (CFM) CURVE SHALL BE AFFIXED TO THE TERMINAL UNIT EXPRESSING DIFFERENTIAL PRESSURE VS CFM. PRESSURE TAPS SHALL BE PROVIDED FOR FIELD USE AND EASE OF BALANCING.

OCCUPIED MODE;

- I. THE CONTROLLER SHALL CONTINUE TO MONITOR ROOM TEMPERATURE AND RESET THE CFM SETPOINT UP OR DOWN IN RESPONSE TO COOLING/HEATING DEMAND.
- 2. ON A RISE IN ROOM TEMPERATURE, MODULATE THE AIR DAMPER TOWARDS ITS MAXIMUM CFM SETPOINT UNTIL OCCUPIED CLG. SETPOINT HAS BEEN ACHIEVED. 3. WHEN THE ZONE TEMPERATURE IS BETWEEN THE COOLING SETPOINT AND THE HEATING
- SETPOINT, THE DAMPER SHALL CONTROL TO ITS MINIMUM OCCUPIED AIRFLOW (ADJ.). HOT WATER REHEAT REMAINS CLOSED. 4. ON A CONTINUED FALL IN ROOM TEMPERATURE, CONTINUE DELIVERING THE SCHEDULED
- MINIMUM AIR FLOW AND, INCREASE THE HOT WATER REHEAT OUTPUT PROPORTIONALLY UNTIL THE OCCUPIED HTG. SETPOINT HAS BEEN ACHIEVED.

UNOCCUPIED MODE (BASED ON SCHEDULE OR LOCAL OCCUPANCY SENSOR)

ASSOCIATED AHU IS SCHEDULED OFF

- I. THE AIR DAMPER SHALL REMAIN AT ITS MINIMUM 25% POSITION AND THE HOT WATER REHEAT OUTPUT REMAIN OFF.
- 2. IN THE EVENT THE AHU IS ENABLED DURING UNOCCUPIED HOURS (DUE TO A NIGHT SETBACK CALL FOR COOLING OR HEATING), THE BOX SHALL CONTROL ACCORDING TO THE OCCUPIED MODE DESCRIBED ABOVE USING THE OCCUPIED SETPOINTS. 3. THE BAS SHALL POLL THE VARIOUS ZONES, BASED ON A PRESET REQUEST QUANTITY
- TARGET (INITIALLY SET AT 2), ACTIVATE THE AHU WHEN THE ASSOCIATED QUANTITY TARGET HAS BEEN REACHED. 4. UPON ACTIVATION OF THE AHU BASED ON OCCUPANCY SENSORS, THE ASSOCIATED AHU SHALL BE TEMPORARILY ACTIVATED AND THE TERMINAL UNIT SHALL RESUME NORMAL OCCUPANCY MODE CONTROL. DEACTIVATION OF ALL LOCAL OCCUPANCY SENSORS SHALL RETURN TO TERMINAL UNIT TO ITS UNOCCUPIED STATE AND CAUSE
- THE ASSOCIATED AHU TO SHUT DOWN. 5. TERMINAL UNIT AND ASSOCIATED AHU SHALL REMAIN OCCUPIED AND ACTIVE FOR A MINIMUM OF I HR. (ADJUSTABLE).

ASSOCIATED AHU RUNS CONTINUOUSLY

I. ON A RISE IN ROOM TEMPERATURE, MODULATE THE AIR DAMPER TOWARDS ITS MAXIMUM CFM SETPOINT UNTIL THE UNOCCUPIED CLG. SETPOINT HAS BEEN ACHIEVED. 2. ON A FALL IN ROOM TEMPERATURE MODULATE THE AIR TOWARDS ITS UNOCCUPIED MINIMUM CFM SETPOINT. ON A CONTINUED FALL IN ROOM TEMPERATURE, INCREASE THE HOT WATER REHEAT OUTPUT PROPORTIONALLY UNTIL THE UNOCCUPIED HTG. SETPOINT HAS BEEN ACHIEVED.

OCCUPIED CLG. SETPOINT 74°F (ADJUSTABLE) OCCUPIED HTG. SETPOINT 70°F (ADJUSTABLE) UNOCCUPIED CLG. SETPOINT 78°F (ADJUSTABLE) UNOCCUPIED HTG. SETPOINT 68°F (ADJUSTABLE)

GRILLES

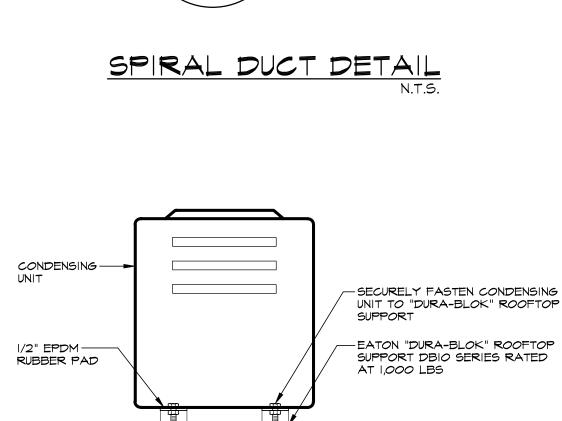
- WR TITUS MODEL 350RL 35° FIXED DEFLECTION, 3/4" SPACING
- ALL GRILLES & REGISTERS ARE STEEL HEAVY DUTY CONSTRUCTION.

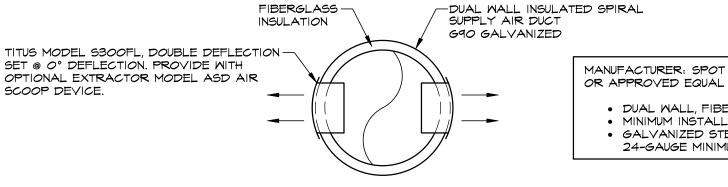
OPERATION	1
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SCALE.			N.I PROFESSIONAL ENGINEER Nº 24GED3895000	SUBMISSION.	
A3 NUIEU DATE	MECHANICAL OCHEDULEO			8/10/2023 - REVIEW/COORDINATION	MPE CONSULTING AND DESIGN LLC
9/5/2023	FOR	MULE CONSULTING and Design LLC	LLC MP PROFESSIONAL ENGINEER No. 088381 MD PROFESSIONAL ENGINEER No. 36281	8/24/2023 - REVIEW/COORDINATION	PLANS. ALL DRAWINGS, SPECIFICATION PLANS. ALL DRAWINGS, SPECIFICATION
DRAWN BY.	SIGNATURE SCIENCE	دور معناقت المناقد المن		9/5/2023 - BIDDING	AND COPIES THEREOF ARE AND SHALL REMAN THE PROPERTY OF MPE CONSULTING AND DESIGN LLC UNLESS THIS PLAN HAS
KAP		ະ. ເ. ໂ		V 9/21/2023 - ADDENDUM No. 1	THE RAISED SEAL OF THE LICENSE PROFESSIONAL RESPONSIBLE FOR TH
CHECKED BY.	SITUATED AT		Daniel A. Loveland Sr., P.E.	A 1/10/2023 - VALLIE ENGINEEDING	PLAN, IT SHALL NOT BE CONSIDERE AN AUTHORIZED DOCUMENT. THESE PLAN
DJF		00000000000000000000000000000000000000			
APPROVED BY.	600 AVIATION RESEARCH BLVD.				
DAL SR.	EGG HARBOR TOWNSHIP, NJ 08234				CONCENT OF MILE CONCOLLING AND DECKIN E

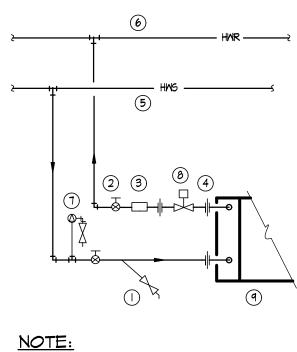
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ROOF MOUNTED EQUIPMENT DETAIL



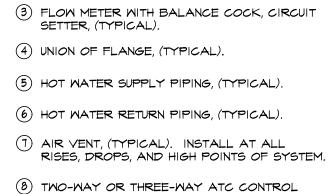






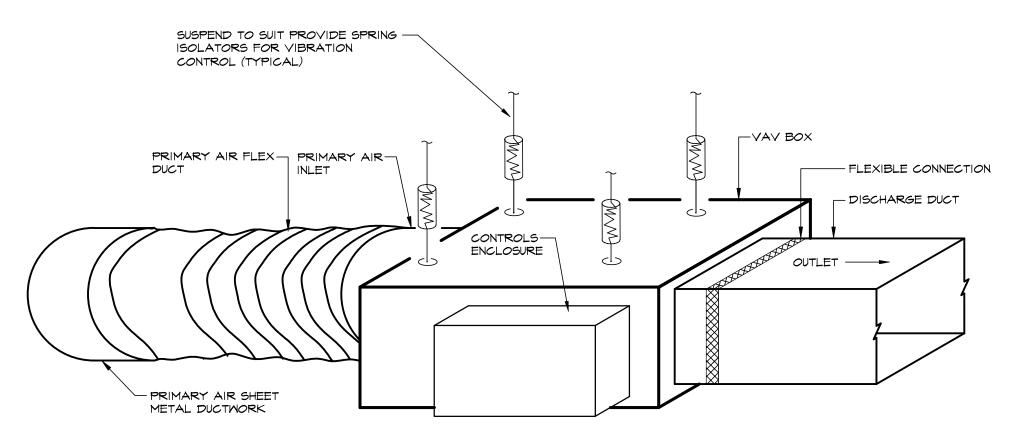
I. CONTRACTOR SHALL MATCH EXISTING

BUILDING CONTROLS



COIL.

TYPICAL VAV BOX DETAIL KEY NOTES () STRAINER WITH BLOW DOWN VALVE, (TYPICAL).



MECHANICAL G

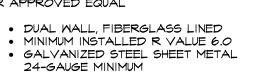
2 BALL VALVE 2" AND SMALLER OR BUTTERFLY VALVE 2" AND LARGER, (TYPICAL).

VALVE SUPPLIED BY CONTROL CONTRACTOR. INSTALLED BY MECHANICAL CONTRACTOR

(TYPICAL). INSTALL 3-WAY VALVE AT END OF LOOP UNITS AND WHERE SHOWN. VALVES SHALL BE DIRECT DIGITAL CONTROL.

(1) TYPICAL VAV BOX WITH HOT WATER REHEAT

MANUFACTURER: SPOT SPIRAL PIPE OF TEXAS



ROOF



<u>SCOPE</u>

- I. PROVIDE ALL MATERIALS AND EQUIPMENT INDICATED ON THESE DRAWINGS. THE CONTRACTOR IS RESPONSIBLE FOR ALL MATERIALS AND LABOR TO SATISFY A COMPLETE AND WORKING SYSTEM WHETHER SPECIFIED OR IMPLIED.
- 2. WORK TO BE PERFORMED UNDER THE MECHANICAL SPECIFICATIONS AND DRAWINGS CONSISTS OF FURNISHING ALL LABOR AND MATERIAL FOR THE INDICATED SPACE INCLUDING BUT NOT LIMITED
- HVAC SYSTEM AND ACCESSORIES
- AUTOMATIC TEMPERATURE CONTROLS DUCTWORK, DIFFUSERS, AND ACCESSORIES
- VENTILATION SYSTEMS.
- 3. CONTRACTOR SHALL COORDINATE ALL WORK WITH OTHER TRADES TO AVOID CONFLICT AND TO FACILITATE THE WORK WITHOUT CAUSING UNNECESSARY DELAYS. IMMEDIATELY REPORT ANY DISCREPANCIES, IN WRITING, TO THE ENGINEER. ALL CHANGES AND/OR ALTERATIONS REQUIRE REVIEW AND APPROVAL BY THE ENGINEER.

<u>GENERAL</u>

- ALL DESIGN PROFESSIONALS, CONSULTANTS, CONTRACTORS AND SUB-CONTRACTORS PERFORMING WORK ON THIS PROJECT SHALL BE FULLY RESPONSIBLE FOR THE PROPER PERFORMANCE OF THEIR WORK, COORDINATION WITH OTHER CONSULTANTS AND TRADESPEOPLE, MEANS AND METHODS OF CONSTRUCTION, JOB SAFETY AND SECURITY. MPE CONSULTING AND DESIGN LLC INCLUDING ITS AGENTS AND EMPLOYEES ARE NOT RESPONSIBLE OR LIABLE IN ANY WAY FOR THE ABOVE AND SHALL BE HELD HARMLESS AND INDEMNIFIED BY ALL PARTIES FROM ALL CLAIMS, LOSSES, SUITS, AND LEGAL ACTION WHATSOEVER, ARISING FROM THE PERFORMANCE OF WORK ON THE PROJECT.
- 2. CONTRACTOR SHALL BE RESPONSIBLE FOR EXAMINATION OF ALL EXISTING EQUIPMENT, DUCTWORK, PIPES, AND ANCILLARY COMPONENTS TO ENSURE SAFETY AND SUITABILITY FOR CONTINUED USE WHEN APPLICABLE. IMMEDIATELY REPORT ANY DISCREPANCIES OR DEFICIENCIES TO THE OWNER, GENERAL CONTRACTOR, AND ENGINEER'S OFFICE BEFORE PROCEEDING WITH WORK.
- 3. CONTRACTOR SHALL PROVIDE FOR FIELD VERIFICATION AND COORDINATION OF ALL DIMENSIONS AND CONDITIONS PRIOR TO MATERIAL PROCUREMENT AND/OR FABRICATION. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH ALL OTHER TRADES INVOLVED. PROVIDE FOR ALL FIELD MODIFICATIONS SUCH AS OFFSETS IN PIPING OR DUCTWORK AS NEEDED TO AVOID CONFLICT WITH ANY AND ALL OBSTRUCTIONS AND/OR INTERFERENCES THAT MAY AFFECT THE LAYOUT INDICATED ON THESE DRAWINGS. NO ADDITIONAL COST TO THE CONTRACTOR WILL BE GRANTED FOR THIS WORK.
- 4. ALL EQUIPMENT SHALL BE INSTALLED IN A WORKMAN LIKE MANNER, MEETING THE ACCEPTED STANDARDS OF THE HVAC INDUSTRY. WORK SHALL BE PERFORMED BY FIRMS AND CRAFTSMAN REGULARLY ENGAGING IN WORK OF THIS NATURE.
- 5. ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND SHALL BE OF THE TYPE AND CAPACITIES INDICATED ON THE DRAWINGS, OR APPROVED EQUAL AND/OR SUBSTITUTIONS.
- 6. ALL EQUIPMENT AND MATERIALS PROVIDED UNDER THESE SPECIFICATIONS SHALL BE LIMITED TO PRODUCTS REGULARLY PRODUCED AND RECOMMENDED FOR THE PROPOSED SERVICE. 7. SUBSTITUTIONS AND/OR EQUAL PRODUCTS MUST BE APPROVED IN WRITING BY THE ENGINEER
- PRIOR TO INSTALLATION. 8. GUARANTEE IN WRITING ALL MATERIALS, EQUIPMENT, AND WORKMANSHIP FOR A PERIOD OF ONE YEAR FROM THE DATE OF OWNER'S ACCEPTANCE. GUARANTEE SHALL BE UNCONDITIONAL.
- 9. DO NOT SCALE THIS DRAWING FOR EXACT DIMENSIONS. VERIFY ALL FIGURES, CONDITIONS, DIMENSIONS, ETC. AT THE JOB SITE.
- IO. ALL MATERIALS AND EQUIPMENT TO BE REMOVED AND NOT REUSED ON THIS PROJECT SHALL REMAIN THE PROPERTY OF THE OWNER, AND SHALL BE STORED IN A PLACE DESIGNATED BY HIM. IF HOMEVER, THE OWNER DOES NOT DESIRE TO RETAIN POSSESSION OF ANY ITEMS, THEY SHALL BECOME THE PROPERTY OF THE CONTRACTOR WHO SHALL REMOVE THESE ITEMS FROM THE PREMISES.
- II. LOCATIONS OF EXISTING EQUIPMENT, INCLUDING PIPING, DUCTWORK, DIFFUSERS, AND REGISTERS, HAVE BEEN TAKEN FROM THE BEST AVAILABLE INFORMATION. THE DRAWINGS ARE INTENDED TO BE USED FOR INFORMATIONAL PURPOSES ONLY. THE CONTRACTOR IS NOT TO SCALE DRAWINGS OR ASSUME THAT ALL EQUIPMENT IS SHOWN. THE CONTRACTOR SHALL VISIT THE SITE TO DETERMINE THE TOTAL EXTENT OF REMOVALS AND NEW WORK AS DIAGRAMMED ON THE PLANS. EXTRA COMPENSATION FOR FAILURE TO COMPLY WITH THE ABOVE STATEMENTS WILL NOT BE CONSIDERED.
- 12. CONTRACTORS SHALL VISIT THE PROJECT PRIOR TO SUBMITTAL OF PROPOSAL AND THOROUGHLY FAMILIARIZE THEMSELVES WITH EXISTING CONDITIONS AND CONDITIONS THAT WILL AFFECT THE PERFORMANCE OF THEIR WORK. FAILURE TO DO SO WILL NOT ENTITLE THEM TO ANY ADDITIONAL COMPENSATION FOR PROVIDING A COMPLETE AND APPROVED SYSTEM.
- 13. CONTRACTOR SHALL REFER TO ALL DRAWINGS FOR INFORMATION, SPECIFICATIONS, AND/OR INSTRUCTIONS RELATIVE TO THE PROJECT SCOPE OF WORK AND PROVIDE WORK/COORDINATION REQUIRED TO FACILITATE OTHER CONTRACTORS.
- 14. THERMOSTATS SHALL BE MOUNTED SO THAT OPERABLE PARTS ARE LOCATED NO HIGHER THAN 48" ABOVE FINISHED FLOOR. IF THE REACH IS OVER AN OBSTRUCTION BETWEEN 20" AND 25" IN DEPTH THE MAXIMUM HEIGHT SHALL BE 46".
- 15. CONTRACTOR SHALL PROVIDE LOCKABLE METAL, VENTED, THERMOSTAT COVERS FOR ALL THERMOSTATS.
- 17. ALL ROOFING WORK SHALL BE PERFORMED BY A CERTIFIED/APPROVED COMPANY ACCEPTABLE TO ROOF WARRANTY COMPANY. COORDINATE WITH GENERAL CONTRACTOR.

DEMOLITION

- I. CONTRACTOR IS RESPONSIBLE FOR SELECTIVE DEMOLITION IN ALL AREAS AS REQUIRED TO ACCOMMODATE THE PROJECT SCOPE OF WORK. ALL SYSTEMS AND ANCILLARY COMPONENTS MADE OBSOLETE SHALL BE COMPLETELY REMOVED AND DISPOSED. INSTALL BY-PASS WHERE REQUIRED TO MAINTAIN THE INTEGRITY OF OVERALL SYSTEMS REMAINING AND SERVING AREAS OUTSIDE THE SCOPE OF WORK AREA.
- 2. CONTRACTOR SHALL REVIEW EXISTING "AS-BUILT" DRAWINGS AND PERFORM SITE INSPECTION TO ESTABLISH EXTENT OF DEMOLITION PRIOR TO BID.

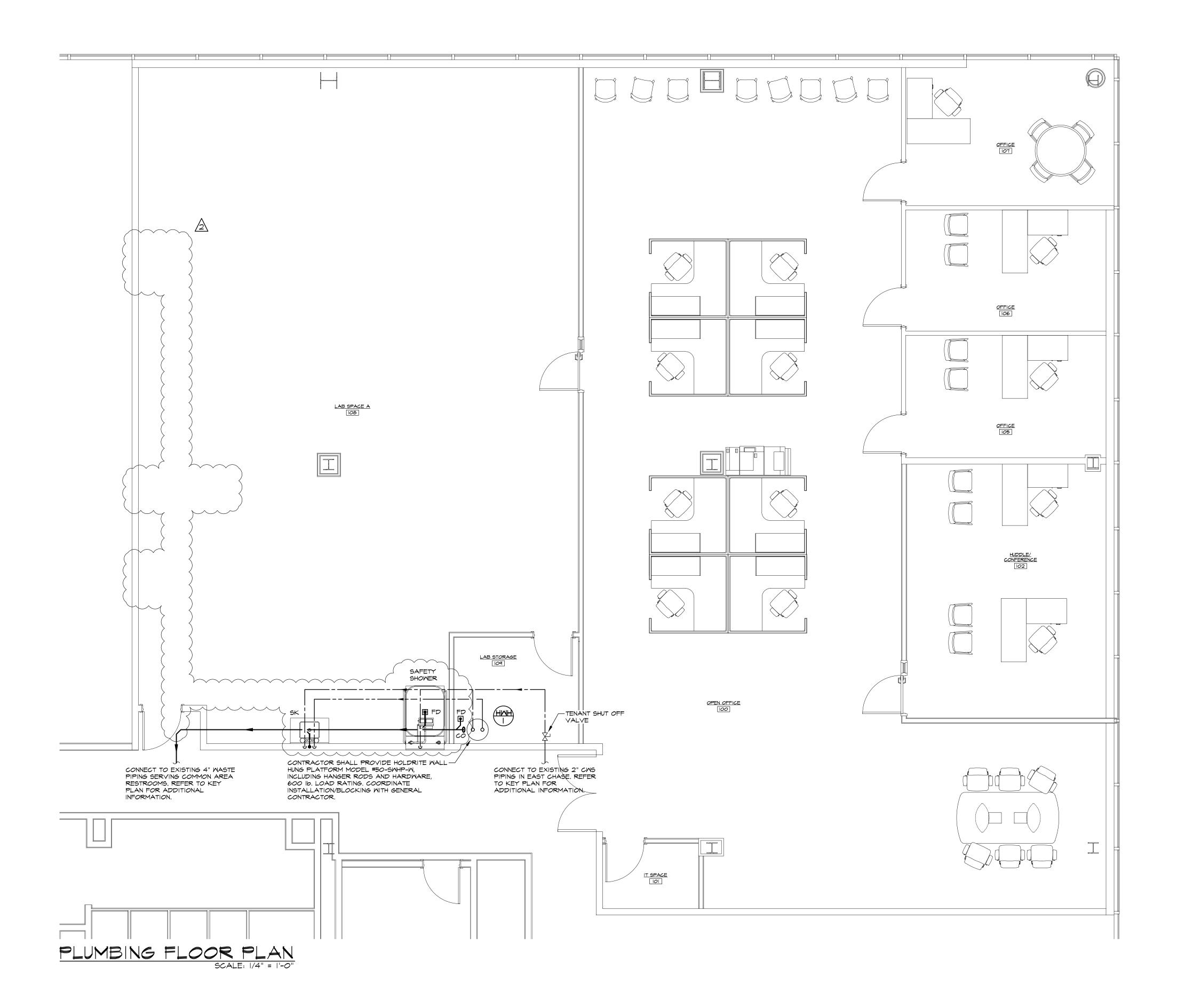
CODES AND STANDARDS

- I. ALL WORK SHALL BE PERFORMED IN STRICT COMPLIANCE WITH THE 2021 EDITION OF INTERNATIONAL MECHANICAL CODE, NFPA, SMACNA, LOCAL CODES, AND REGULATIONS GOVERNING WORK OF THIS NATURE.
- 2. CONTRACTOR SHALL SECURE ALL PERMITS OR APPLICATIONS, AND PAY ANY AND ALL FEES AS REQUIRED.
- BRAND NAMES, STANDARDS OF QUALITY AND PERFORMANCE
- I. BRAND NAMES AND/OR DESCRIPTIONS USED IN THESE DOCUMENTS ARE TO ACQUAINT THE BIDDERS WITH THE TYPES OF MATERIALS/EQUIPMENT DESIRED AND WILL BE USED AS A STANDARD BY WHICH MATERIALS/EQUIPMENT OFFERED AS EQUIVALENT WILL BE EVALUATED.
- 2. THE LISTED BRANDS SHALL SERVE AS A REFERENCE OR POINT OF COMPARISON FOR FUNCTION OR OPERATIONAL CHARACTERISTICS DESIRED FOR THE MATERIAL/EQUIPMENT BEING REQUESTED. WHERE BIDDER SUBMITS AN EQUIVALENT, IT SHALL BE THE RESPONSIBILITY OF THE BIDDER TO DOCUMENT THE EQUIVALENT CLAIM. FAILURE TO SUBMIT SUCH DOCUMENTATION SHALL BE GROUNDS FOR REJECTION OF THE CLAIM OF EQUIVALENT.
- 3. SUBSTITUTES AND "OR EQUAL" SUBMISSIONS MUST BE APPROVED IN WRITING BY ENGINEER PRIOR TO SUBMISSION OF BID.

<u>SUBMITTALS</u>

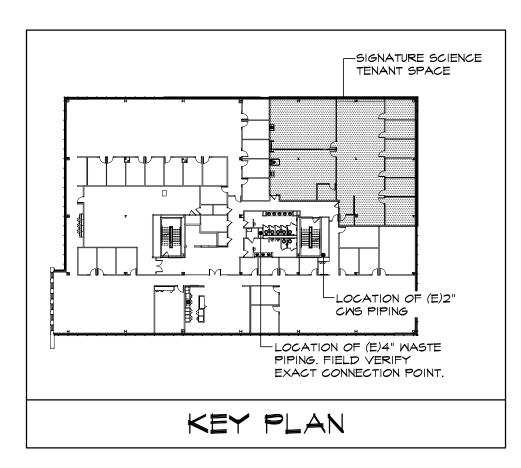
- I. SUBMIT MANUFACTURES LITERATURE TO ENGINEERS OFFICE WHICH INDICATES THAT THE EQUIPMENT MEETS REQUIREMENTS OF THESE DRAWINGS AND SPECIFICATIONS. SUBMITTALS SHALL INCLUDE BUT NOT BE LIMITED TO THE FOLLOWING: HVAC UNITS
 - DIFFUSERS/GRILLES • DUCT SHOP DRAWINGS
- 2. SUBMIT THREE SETS 1/4" SCALE SHOP DRAWINGS OF DUCTWORK AFTER COORDINATION WITH FINAL STRUCTURAL DRAWINGS AND OTHER TRADES THAT MAYBE AFFECTED BY THIS WORK. DRAWINGS SHALL CLEARLY INDICATE CHANGES AND/OR ALTERATIONS TO THE DESIGN DOCUMENTS. ENGINEER SHALL REVIEW AND APPROVE DRAWINGS PRIOR TO COMMENCING WORK.

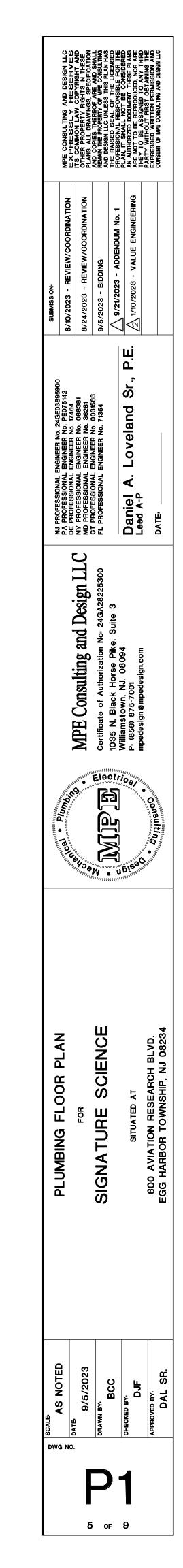
	CORDINATION THIS CONTRACTOR SHALL COORDINATE ALL WORK WITH A COMPLETE SET OF M/P/E, ARCHITECTURAL, CIVIL, AND INTERIOR DESIGN DRAWINGS. IMMEDIATELY REPORT ANY		MPE CONSULTING EXPRESSLY	OTHER PROPERTY PLANS. ALL DRAWII AND COPIES THERE REMAIN THE PROPERT AND DESIGN LLC UN	I THE HANSED SEAL PROFESSIONAL RES PROFESSIONAL RES AN AUTHORIZED DOC ARE NOT TO BE REI THEY TO BE ASSIG	PARTY WITHOUT FII EXPRESSED WRITTI CONSENT OF MPE CONS
2.	DISCREPANCIES TO THE ENGINEERS OFFICE. CONTRACTOR IS TO COORDINATE AND PROVIDE FOR INTERIOR WALL OPENINGS FOR					
З.	DUCT PENETRATIONS. CONTRACTOR IS TO COORDINATE WITH ELECTRICAL CONTRACTOR FOR LOCATION OF WIRING FOR EACH HVAC UNIT.		IATION	VATION	dum No. 1 Engineering	
4.	CP WIRING FOR EACH HVAC UNIT. CONTRACTOR SHALL COORDINATE AND PROVIDE FOR UNDERCUTTING AND/OR LOUVER DOOR AS INDICATED TO ALLOW ADEQUATE AIR RETURN TO AIR HANDLING UNIT.		REVIEW/COORDINATION	REVIEW/COORDINATION IIDDING	addendum no. Value enginee	
5.	CONTRACTOR TO COORDINATE AND PROVIDE FOR BOXING OF ALL DUCT ETC. EXPOSED TO THE OCCUPIED AREAS OF AS INDICATED ON THE DRAWINGS.	ż	- REVIE	- Reviev Bidding	1 1	
6.	CONTRACTOR TO SUPPLY AND INSTALL ALL CONTROL WIRING AND THERMOSTATS AS REQUIRED.	NOISSIME	8/10/2023 -	8/24/2023 9/5/2023 -	9/21/2023 1/10/2023	
7.	CONTRACTOR SHALL PROVIDE AND INSTALL DISCONNECT SWITCHES ON BOTH INDOOR AND OUTDOOR HVAC UNITS.	<u></u>	8/10	8/24 9/5/	<	
8.	PROVIDE AND COORDINATE INSTALLATION OF ALL FLASHING AT ROOF PENETRATION.				Ц Ц	
9.	CONTRACTOR SHALL PROVIDE HOSE FITTINGS, BALANCING AND SHUT OFF VALVE AT EACH UNIT.		95900 42	_ <i>ღ</i>	Sr.,	
	NDENSATE MECHANICAL CONTRACTOR SHALL PROVIDE ALL CONDENSATE PIPING AS FOLLOWS: • HVAC - TO POINT OF DISCHARGE AS INDICATED ON THE DRAWINGS. PROVIDE CONDENSATE PUMP WHERE NEEDED.		No. 24GE038 7 No. PE0751 7 No. 17464	H No. U88381 R No. 36281 7 No. 003156 7 No. 71354 8 No. 71354	eland	
2.	CONDENSATE PIPING SHALL BE "Flowgaurd Gold" PLENUM RATED CPVC PIPE AND FITTINGS IN ACCORDANCE WITH ASTM E 84 WITH A FLAME SPREAD INDEX OF 5 AND A SMOKE DEVELOPED INDEX OF 25. THE USE OF TUBING IS PROHIBITED.		AL ENGINEER IAL ENGINEEI IAL ENGINEEI	4al Engineei 1al Engineei 1al Engineei 1al Engineei 1al Engineei	. Lov	
3.	CONDENSATE WASTE PIPING SHALL BE SLOPED NOT LESS THAN 1/8" PER FOOT. DRAINAGE FITTINGS SHALL BE USED IN SIZES I 1/4" AND LARGER. MINIMUM PIPE SIZING SHALL BE AS FOLLOWS:		PROFE PROFE PROFE	PROFESSION PROFESSION PROFESSION PROFESSION	Daniel A	DATE
	3/4" PIPE SIZE THROUGH 3-TON COOLING CAPACITY I" PIPE SIZE THROUGH 20-TON COOLING CAPACITY I 1/4" PIPE SIZE THROUGH 100-TON COOLING CAPACITY		Z Z Z Z	S S C L	ĔŐ	PA
	I 1/2" PIPE SIZE THROUGH 300-TON COOLING CAPACITY 2" PIPE SIZE THROUGH 600-TON COOLING CAPACITY					
	ATING, VENTILATION, AIR CONDITIONING UNITS EQUIPMENT MUST BE PURCHASED THROUGH THE LOCAL FACTORY AUTHORIZED COMMERCIAL SALES OFFICE ONLY. UNITS PURCHASED THROUGH RESIDENTIAL OR WHOLESALE DISTRIBUTORS WILL NOT BE ACCEPTED.			A	ulte a	
2.	CONTRACTOR SHALL INSTALL ALL HVAC EQUIPMENT IN STRICT COMPLIANCE WITH MANUFACTURES RECOMMENDATIONS AS PROVIDED BY THE WRITTEN INSTALLATION GUIDE LINES. THERE SHALL BE NO EXCEPTIONS UNLESS WRITTEN APPROVAL IS GIVEN BY THE ENGINEERS OFFICE PRIOR TO BID.			and 1	ο Δ	
3.	PROVIDE AND INSTALL UNITS INDICATED ON DRAWINGS AND SCHEDULES. UNITS SHALL INCLUDE APPURTENANCES NECESSARY FOR COMPLETE AND PROPER INSTALLATION.		14.00	Authorization	orse 080 sian.c)
ŧ.	PROVIDE VIBRATION ISOLATION ON ALL HVAC EQUIPMENT. INSTALL IN ACCORDANCE WITH MANUFACTURERS REQUIREMENTS.			0	ack wn, 5-70 9mpe	
ł	PROVIDE MANUFACTURERS STANDARD WARRANTY ON UNITS INCLUDING A MINIMUM 5 YEAR COMPRESSOR WARRANTY.			E C	o N. 151 amsto 56) 87 desian <i>e</i>	•
5.	DURING CONSTRUCTION; COMPLETELY SEAL FORCED AIR DUCTS AND HVAC EQUIPMENT OPENINGS WITH PLASTIC FILM AND TAPE UNTIL AFTER FINAL CLEANING OF UNITS. INSTALL (I) AND PROVIDE (2) SETS OF FARR 30/30 OR EQUAL MEDIUM EFFICIENCY PLEATED DISPOSABLE FILTERS AT THE COMPLETION OF THE PROJECT. • HVAC UNITS SHALL NOT BE USED AS TEMPORARY HVAC DURING CONSTRUCTION.					
Þ.	CONTRACTOR SHALL PROVIDE AND INSTALL REFRIGERATION PIPING IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS AND IN SUCH A WAY AS TO BE INCONSPICUOUS AND INSULATED TO PREVENT CONDENSATION.		Plumered Dise		ل گ	
	EXPOSED REFRIGERATION LINES SHALL BE ENCLOSED IN PVC TO PREVENT PHYSICAL DAMAGE AND FINISHED TO MATCH OR COORDINATE WITH ADJACENT MATERIALS. CTWORK		0100000000			ling or
	CONTRACTOR SHALL PROVIDE AND INSTALL APPROVED FIRE DAMPERS AND ACCESS PANELS IN ANY AND ALL DUCTWORK WHICH PENETRATES A HORIZONTAL OR VERTICAL FIRE PARTITION, DEMISING WALLS, AND WHERE OTHERWISE SHOWN ON THE DRAWINGS.	_		<i>90000000</i> 00000000000000000000000000000	000000000000000000000000000000000000000	
	ALL JOINTS TO BE SEALED WITH DUCT MASTIC AND TAPE IN ACCORDANCE WITH SMACNA STANDARDS.					
	ALL DUCT DIMENSIONS SHOWN ARE NET INSIDE VALUES. DIMENSIONS MAY BE CHANGED AS LONG AS NET FREE FACE AREA IS MAINTAINED. SUPPORT DUCTWORK AT A MAXIMUM INTERVAL OF 16'-O" AND NO MORE THAN 2'-O" FROM					
	ALL BRANCH DUCTS SHALL HAVE A VOLUME DAMPER.					
	CONTRACTOR SHALL PROVIDE AND INSTALL FLEXIBLE DUCT CONNECTIONS IN SUPPLY AND RETURN AIR DUCTWORK AT AIR HANDLERS.		NOTES	ш		34
	EXPOSED DUCTWORK TO OCCUPIED SPACES SHALL BE PROVIDED WITH I" INTERNAL LINED DUCTWORK WITH A MINIMUM R VALUE OF 6.0. MAINTAIN CONTINUOUS VAPOR BARRIER TO PREVENT CONDENSATION. INSULATION SHALL HAVE A FLAME SPREAD RATING OF 25 AND SMOKE DEVELOPED RATING OF 50.			SCIENCE		CH BLVD. NJ 08234
	REFRIGERANT PIPING SHALL BE INSULATED WITH A MINIMUM 1/2" ARMACELL "AP ArmaFlex Black LapSeal". PROVIDE WITH "WB" FINISH FOR OUTDOOR USE.		NLS		O AT	AVIATION RESEARCH HARBOR TOWNSHIP, N
	CHANICAL EQUIPMENT IDENTIFICATION PROVIDE STENCILED PIPE MARKERS OR PLASTIC TAPE TO IDENTIFY AIR SUPPLY, RETURN, EXHAUST, INTAKE DUCTWORK INCLUDE DIRECTION OF AIR FLOW.		DETAILS	URE	SITUATED	N RE TOWI
2.	LOCATE MARKERS AT EACH BRANCH TAKE OFF AND NEAR MAJOR EQUIPMENT. MAXIMUM SPACE INTERVALS SHALL NOT EXCEED 25'-O".			ATL	<u></u>	
8.	INSTALL ENGRAVED PLASTIC LAMINATE SIGN ON EACH MAJOR ITEM OF MECHANICAL EQUIPMENT AND EACH OPERATING DEVICE.			SIGNAT		600 A EGG HAI
	STING AND BALANCING AIR & WATER CONTRACTOR SHALL PROVIDE FOR BALANCING OF AIR AND WATER SYSTEMS TO ACHIEVE VALUES SHOWN ON THE DRAWINGS.		MECHANICAL	ខ		Э Ш Ш
2.	BALANCING AGENCY SHALL BE CERTIFIED BY THE NATIONAL ENVIRONMENTAL BALANCING BUREAU (NEBB) OF BY ASSOCIATED AIR BALANCE COUNCIL (AABC). AGENCY SHALL HAVE AT LEAST ONE (I) PROFESSIONAL ENGINEER REGISTERED IN THE STATE IN WHICH SERVICES ARE TO BE PERFORMED, CERTIFIED BY NEBB OR AABC AS A TEST AND BALANCE ENGINEER.		~			
	PROVIDE DOCUMENTATION TO ENGINEER'S OFFICE FOR REVIEW AND APPROVAL, INDICATING RESULTING AIR AND WATER FLOWS FROM PERFORMANCE OF BALANCING. REBALANCE SYSTEM AS REQUIRED TO SATISFY SYSTEM REQUIREMENTS.					
	RESTOP PENETRATIONS FOR CABLES, CABLETRAYS, CONDUITS, PIPES, WIRES, AND SIMILAR ITEMS TO ACCOMMODATE ELECTRICAL, MECHANICAL, PLUMBING, AND COMMUNICATIONS SYSTEMS THAT PASS THROUGH A WALL, FLOOR, OR FLOOR/CEILING ASSEMBLY CONSTRUCTED AS A FIRE BARRIER SHALL BE PROTECTED BY A FIRESTOP SYSTEM OR DEVICE. THE FIRESTOP SYSTEM OR DEVICE SHALL BE TESTED IN ACCORDANCE WITH ASTM E 814 OR ANSI / UL 1479.	SCALE	AS NOTED	9/6 NBY.	CHECKED BY. DJF	APPROVED BY. DAL SR.



	LEGEND
	WASTE PIPING
	COLD WATER SUPPLY
	HOT WATER SUPPLY
	VENT PIPING
	CLEANOUT WITH FLUSH COVER
$\overline{\mathbf{A}}$	BALL VALVE SHUTOFF
\bowtie	FIXTURE STOP
	FLOOR DRAIN
Ð	CONNECTION POINT BETWEEN NEW AND EXISTING
ABBREV	ATIONS SCHEDULE
(E)	EXISTING TO REMAIN UNLESS OTHERWISE NOTED
CMS	COLD WATER SUPPLY
HMH	HOT WATER HEATER
	HOT WATER SUPPLY
HMS	HUT MATER SUPPLI

NOTE: I. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO STARTING WORK. IMMEDIATELY REPORT ANY DISCREPANCIES TO THE ENGINNER'S OFFICE PRIOR TO PROCEEDING WITH THE WORK.





		PLUMBI	NG	FX	TUF		30	⊣EI	DULE
SYMBOL	TYPE OF EQUIPMENT	MANUF./MODEL#	DRAIN	VTR	HMS	CMS	SFU	DFU	DESCRIPTIONS
SK	SINK	ELKAY #DII721	/2"	/2"	1/2"	1/2"	1.0		SINGLE BOWL, 22 GAUGE, W/3 I/2" 3 FAUCET HOLES, W/ DELTA FAUCE
00	CLEANOUT	ZURN #Z1400							DURA-COATED CAST IRON CLEAN ROUND ADJUSTABLE SCORIATED S NICKEL BRONZE TOP
FD	FLOOR DRAIN	ZURN #Z4155	3"	/2"	-	-	-		DURA-COATED CAST IRON BODY I MEMBRANE CLAMP, ADJUSTABLE (AND HEEL-PROOF STRAINER

NOTES: I. FLOOR DRAINS SHALL BE PROVIDED WITH 4" DEEP TRAP TRAP SEAL AND Rectorseal

SureSeal MODEL #SSXXO9V INLINE FLOOR DRAIN TRAP SEAL (ASSE 1072). 2. SINK "SK" SHALL BE PROVIDED WITH THE FOLLOWING EYEWASH:

 GUARDIAN DECK MOUNTED "AUTOFLOW" 90° SMIVEL MODEL #GI805(XX) WITH THERMOSTATIC MIXING VALVE MODEL #G6020. RIGHT/LEFT HAND MOUNT BY OWNER.

		HOT	MA	TER HEA	TER	SCH	EDU	
SYMBOL	MANUFACTURER/ MODEL #			.ON RECOVERY 00°F RISE	WATTS	VOLT	PHASE	REMARKS
HMH-I	BRADFORD WHITE LEIIOU3-I	10		6	1,500	120		LIGHT DUTY COMMERCIAI ELECTRIC WATER HEATEI
NOTE	\cdot				•	•		

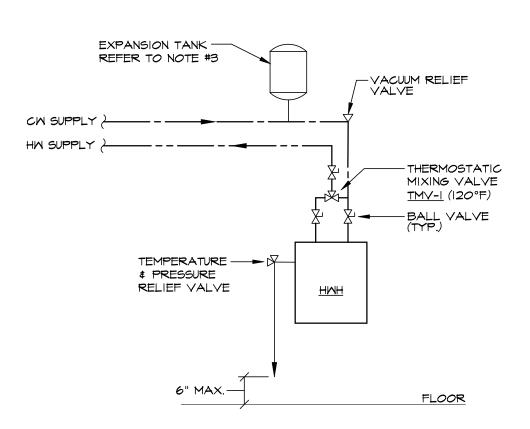
NOTE:

PLUMBING CONTRACTOR SHALL PROVIDE HOLDRITE OR EQUAL # SMHP-W WALL MOUNTING BRACKET AND HARDWARE.
 PROVIDE T&P VALVE AND DISCHARGE PIPING

	Ţ⊨	ERMOST	ATIC MI	XING VA	LVE SC	CHEDU!	
SYMBOL	MANUFACTURER/ MODEL #	TEMPERATURE RANGE	TEMPERATURE SETPOINT	MAXIMUM PRESSURE (PSI)	MAX. FLOW (GPM)	MIN. FLOW (GPM)	
	LEONARD TM-26-BDT-LF	90°F-140°F	20°F	125	26.0	1.0	LOCK, CSA, A
<u>TMV-2</u>	LEONARD 170A-LF-BP-BRKT-CP	95°F-120°F	IO5°F	125	4.0	0.25	LOCK, CSA, A

SAFETY STATION SCHEDULE HUGHES SAFETY EMERGENCY TANK SHOWER WITH INTEGRAL EYE/FACE WASH MODEL #QSI200, 317 GALLONS, I.7KW HEATER, 110V, 10, ANSI COMPLIANT NOTES: 1. INSTALLATION SHALL BE IN STRICT COMPLIANCE WITH THE MANUFACTURE'S WRITTEN REQUIREMENTS. 2. LISTED MANUFACTURE TO ESTABLISH BASIS OF DESIGN; APPROVED EQUAL

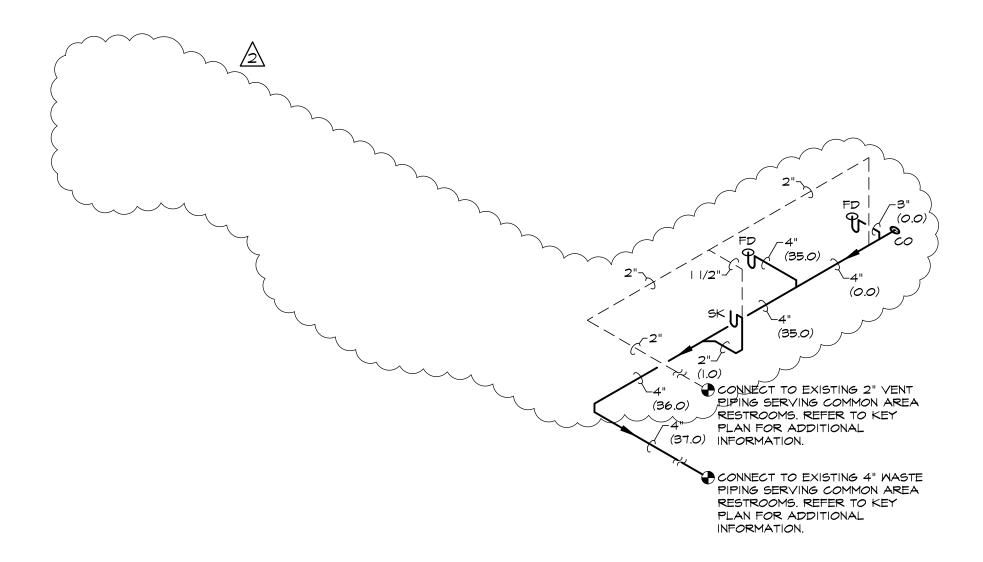
2. LITTER MANULAUTURE TO ESTADLISH DASIS OF DESIGN; AMMROVED EQUAL IS ACCEPTABLE.



<u>NOTE:</u>

- I. PLUMBING CONTRACTOR SHALL PROVIDE HOLDRITE WALL HUNG PLATFORM MODEL #50-SWHP-W, INCLUDING HANGER RODS AND HARDWARE, 600 Ib. LOAD RATING. COORDINATE INSTALLATION/BLOCKING WITH GENERAL CONTRACTOR.
- 2. CONTRACTOR SHALL PROVIDE A DRIP PAN FOR ALL WATER HEATERS. METALLIC PANS SHALL BE 24 GAGE MINIMUM AND NON-METALLIC PANS SHALL BE .0625 INCH MINIMUM THICKNESS. PANS SHALL BE NOT LESS THAN I I/2" DEEP AND SUFFICIENT SIZE TO HOLD THE HEATER WITHOUT INTERFERING DRAIN VALVES, BURNERS, CONTROLS AND ANY REQUIRED ACCESS.
- 3. PLUMBING CONTRACTOR SHALL VERIFY EXISTENCE OF CHECK VALVE ON WATER SUPPLY. IF CHECK VALVE DOESN'T EXIST, EXPANSION TANK MAY BE OMITTED.





MASTE PIPING RISER DIAGRAM

PLUMBING GEN

' DRAIN OPENING, ET #26C3942
IOUT WITH SECURED
W/ INVERTIBLE COLLAR

S
AL UTILITY ER

REMARKS
ABLE SETTING ASSE AGENCY APPROVAL.
ABLE SETTING ASSE AGENCY APPROVAL.

<u>SCOPE</u>

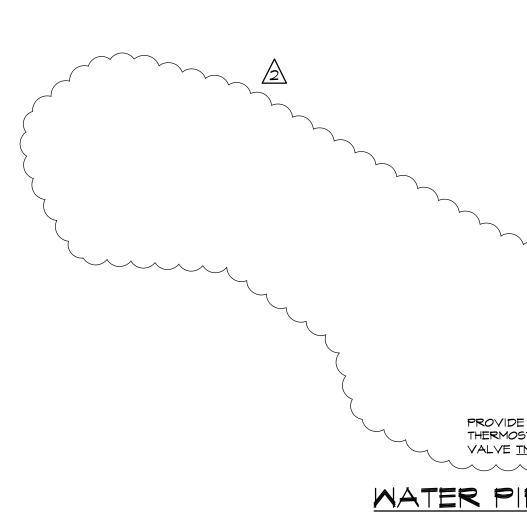
 THE WORK TO BE PERFORMED UNDER THE PLUMBING PLANS AND SPECIFICATIONS CONSISTS OF FURNISHING ALL MATERIAL AND LABOR FOR THE COMPLETE INSTALLATION OF ALL PLUMBING SYSTEMS. THE WORK SHALL INCLUDE BUT NOT LIMITED TO THE FOLLOWING:
 A. COLD AND HOT WATER SYSTEMS

B. DRAINAGE AND VENT SYSTEMS C. INSULATION

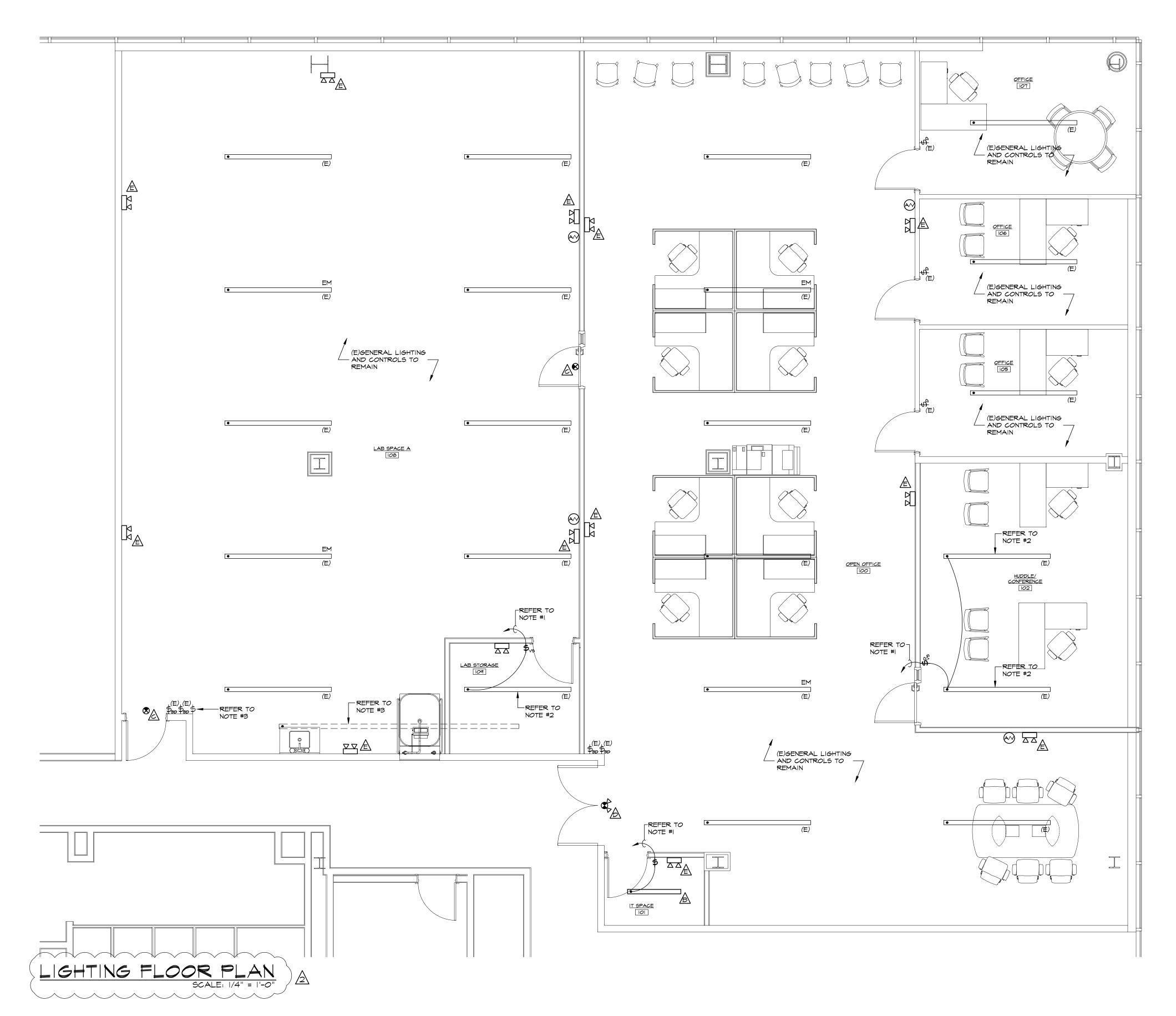
- 2. CONTRACTOR SHALL COORDINATE ALL WORK WITH OTHER TRADES TO AVOID CONFLICT AND TO FACILITATE THE WORK WITHOUT CAUSING UNNECESSARY DELAYS. IMMEDIATELY REPORT ANY DISCREPANCIES, IN WRITING, TO THE ENGINEER. ALL CHANGES AND/OR ALTERATIONS REQUIRE REVIEW AND APPROVAL BY THE ENGINEER.
- 3. CONTRACTOR SHALL INSTALL PLUMBING EQUIPMENT IN STRICT COMPLIANCE WITH THE MANUFACTURES WRITTEN RECOMMENDATIONS AND INSTRUCTIONS.
- GENERAL I. ALL DESIGN PROFESSIONALS, CONSULTANTS, CONTRACTORS AND SUB-CONTRACTORS PERFORMING WORK ON THIS PROJECT SHALL BE FULLY RESPONSIBLE FOR THE PROPER PERFORMANCE OF THEIR WORK, COORDINATION WITH OTHER CONSULTANTS AND TRADESPEOPLE, MEANS AND METHODS OF CONSTRUCTION, JOB SAFETY AND SECURITY. MPE CONSULTING AND DESIGN LLC INCLUDING ITS AGENTS AND EMPLOYEES ARE NOT RESPONSIBLE OR LIABLE IN ANY WAY FOR THE ABOVE AND SHALL BE HELD HARMLESS AND INDEMNIFIED BY ALL PARTIES FROM ALL CLAIMS, LOSSES, SUITS, AND LEGAL ACTION WHATSOEVER, ARISING FROM THE PERFORMANCE OF WORK ON THE PROJECT.
- 2. THE CONTRACTOR SHALL EXAMINE ALL EXISTING EQUIPMENT, PIPES, VALVES AND ANCILLARY COMPONENTS TO ENSURE SAFETY AND SUITABILITY FOR CONTINUED USE. IMMEDIATELY REPORT ANY DISCREPANCIES OR DEFICIENCIES TO THE OWNER, GENERAL CONTRACTOR AND ENGINEER'S OFFICE BEFORE PROCEEDING WITH THE WORK.
- 3. CONTRACTOR SHALL PROVIDE FOR FIELD VERIFICATION AND COORDINATION OF ALL DIMENSIONS AND CONDITIONS PRIOR TO MATERIAL PROCUREMENT AND/OR FABRICATION. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH ALL OTHER TRADES INVOLVED. PROVIDE FOR ALL FIELD MODIFICATIONS SUCH AS OFFSETS IN PIPING AS NEEDED TO AVOID CONFLICT WITH ANY AND ALL OBSTRUCTIONS AND/OR INTERFERENCES THAT MAY AFFECT THE LAYOUT INDICATED ON THESE DRAWINGS. NO ADDITIONAL COST TO THE CONTRACTOR WILL BE GRANTED FOR THIS WORK.
- 4. DO NOT SCALE THIS DRAWING FOR EXACT DIMENSIONS. VERIFY ALL FIGURES, CONDITIONS, DIMENSIONS, ETC. AT THE JOB SITE.
- 5. LOCATIONS OF EXISTING EQUIPMENT, PIPING, VENTS, ETC. HAVE BEEN TAKEN FROM BEST AVAILABLE INFORMATION. THE DRAWINGS ARE INTENDED TO BE USED FOR INFORMATIONAL PURPOSES ONLY. THE CONTRACTOR IS NOT TO SCALE DRAWINGS OR ASSUME THAT ALL COMPONENTS ARE SHOWN. HE SHALL VISIT THE SITE TO DETERMINE THE TOTAL EXTENT OF REMOVALS AND NEW WORK AS DIAGRAMMED ON THE PLANS. EXTRA COMPENSATION FOR FAILURE TO COMPLY WITH THE ABOVE STATEMENT WILL NOT BE CONSIDERED.
- 6. THIS CONTRACTOR SHALL COORDINATE ALL WORK WITH A COMPLETE SET OF M/P/E AND ARCHITECTURAL DESIGN DRAWINGS IF APPLICABLE. IMMEDIATELY REPORT ANY DISCREPANCIES TO THE ENGINEERS OFFICE.
- 7. THE CONTRACTOR SHALL SECURE ALL PERMITS OR APPLICATIONS AND PAY ANY AND ALL FEES REQUIRED.
- 8. ALL PLUMBING FIXTURES SHALL BE SEPARATELY VALVED.
- 9. ALL WATER BRANCHES AND RISERS SHALL BE SEPARATELY VALVED.
- 10. CONTRACTOR SHALL MAKE ALL PLUMBING CONNECTIONS REQUIRED TO EQUIPMENT SUPPLIED BY OTHERS.
- II. CONTRACTOR SHALL PROVIDE AND INSTALL ALL HOT & COLD WATER CONNECTIONS TO THE PLUMBING FIXTURES.
- 12. CONTRACTOR SHALL COORDINATE WITH GENERAL CONTRACTOR FOR THE INSTALLATION OF METAL ACCESS DOORS BY MILCOR STYLE "DW" (NON FIRE RATED) OR STYLE "UFR" (I I/2 HOUR FIRE RATED) AT ALL LOCATIONS REQUIRED TO ACCESS VALVES, DEVICES, ETC. CONCEALED ABOVE CEILINGS OR IN WALLS.
- CODES AND STANDARDS
- I. ALL PLUMBING WORK IS TO BE PERFORMED IN STRICT COMPLIANCE WITH THE 2021 NEW JERSEY EDITION OF THE NATIONAL STANDARD PLUMBING CODE, ALL LOCAL CODES, AND ALL OTHER REGULATION GOVERNING WORK OF THIS NATURE.
- 2. THIS CONTRACTOR IS RESPONSIBLE FOR ALL WORK MATERIALS AND LABOR TO SATISFY A COMPLETE AND WORKING SYSTEM WHETHER SPECIFIED OR IMPLIED.
- BRAND NAMES, STANDARDS OF QUALITY AND PERFORMANCE
- I. BRAND NAMES AND/OR DESCRIPTIONS USED IN THESE DOCUMENTS ARE TO ACQUAINT THE BIDDERS WITH THE TYPES OF MATERIALS/EQUIPMENT DESIRED AND WILL BE USED AS A STANDARD BY WHICH MATERIALS/EQUIPMENT OFFERED AS EQUIVALENT WILL BE EVALUATED.
- 2. THE LISTED BRANDS SHALL SERVE AS A REFERENCE OR POINT OF COMPARISON FOR FUNCTION OR OPERATIONAL CHARACTERISTICS DESIRED FOR THE MATERIAL/EQUIPMENT BEING REQUESTED. WHERE BIDDER SUBMITS AN EQUIVALENT, IT SHALL BE THE RESPONSIBILITY OF THE BIDDER TO DOCUMENT THE EQUIVALENT CLAIM. FAILURE TO SUBMIT SUCH DOCUMENTATION SHALL BE GROUNDS FOR REJECTION OF THE CLAIM OF EQUIVALENT.
- 3. SUBSTITUTES AND "OR EQUAL" SUBMISSIONS MUST BE APPROVED IN WRITING BY ENGINEER PRIOR TO SUBMISSION OF BID.

<u>SUBMITTALS</u>

- . SUBMIT MANUFACTURES LITERATURE TO ENGINEERS OFFICE WHICH INDICATES THAT THE EQUIPMENT MEETS REQUIREMENTS OF THESE DRAWINGS AND SPECIFICATIONS. SUBMITTALS SHALL INCLUDE BUT NOT BE LIMITED TO:
- HOT WATER HEATER
- PLUMBING FIXTURESSAFETY SHOWER
- PIPING AND ACCESSORIESINSULATION



	SOIL WASTE AND VENT PIPING	ID DESIGN L DESIGN L DESIGN L HTS IN THE HTS N THE HTS PLAN SH APE CONSIDE SE
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	FIXTURES.	A REAL AND
	3" AND SMALLER SHALL HAVE A SLOPE OF 1/4" PER FOOT	
		Ardinat Jrdinat Jm No.
	ALL HOT AND COLD WATER PIPING TO BE INSULATED WITH A MINIMUM OF I" FIBERGLASS JACKETED INSULATION (ASTM C547, CLASS I) WITH A FLAME SPREAD RATING OF 25 AND SMOKE DEVELOPED RATING OF 50.	SUBMISSIC 8/10/2023 8/24/2023 - 9/5/2023 - 0/21/20
	DOMESTIC WATER PIPING SHALL BE TYPE "L" COPPER TUBING ABOVE GROUND OR TYPE "K" BELOW GROUND WITH SOLDERED JOINTS USING LEAD FREE SOLDER, PROPERLY CLEANED, USING	
		₫ Щ¢3%8%2 ⊂
		【 纸纸纸纸纸纸纸 】 >
	SHALL BE 105°F.	
	ALL WATER PIPING SHALL BE INSTALLED BELOW BUILDING ENVELOPE INSULATION WITHIN	
	COORDINATE WITH ELECTRICAL CONTRACTOR AND PROVIDE FOR POWER CIRCUIT AS NEEDED.	
	CONTRACTOR SHALL PROVIDE A BRONZE THERMOSTATIC MIXING VALVE ON ALL WATER	
		n LL
	. CONTRACTOR SHALL PROVIDE A DRIP PAN FOR ALL WATER HEATERS. METALLIC PANS SHALL BE	esig
 THE THE THE TOTE TO BE THE ALL THE DEPENDENCE AND THE TABLE TO BE THE ALL THE THE THE THE THE THE THE THE THE THE	SHALL BE NOT LESS THAN I 1/2" DEEP. PAN OUTLET SHALL BE 3/4" AND DRAIN TO POINT OF DISCHARGE AS SHOWN ON THE DRAWINGS	
	CEILING, ETC. IN FINISHED SPACES SHALL BE PROVIDED WITH SOLID PATTERN BRASS CHROME	ultin thoriza U. 080 IJ. 080 Issign.c
	ARRIER FREE REQUIREMENT	CODS and Aut Marck F Sarck F Samped
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	. PENETRATIONS FOR CABLES, CABLETRAYS, CONDUITS, PIPES, TUBES, COMBUSTION VENTS, AND	aning Electrics
EXTINCATION INCLUED DIRECTION OF FLAX. INCLUED DIRECTION OF FLAX. LOCATE MARKERS NAR VALVES, EACH DRAXET FACE OFF AND NEAR MALOR EQUIPMENT. LOCATE MARKERS NAR VALVES, EACH DRAXET FACE OFF AND NEAR MALOR EQUIPMENT. LOCATE MARKERS NAR VALVES, EACH DRAXET FACE OFF AND NEAR MALOR EQUIPMENT. LOCATE MARKERS NAR VALVES, EACH DRAXET FACE OFF AND NEAR MALOR EQUIPMENT. LOCATE MARKERS NAR VALVES, EACH DRAXET FACE OFF AND NEAR MALOR EQUIPMENT. LOCATE MARKERS NAR VALVES, EACH DRAXET FACE OFF AND NEAR MALOR EQUIPMENT. LOCATE MARKERS NAR VALVES, EACH DRAXET FACE OFF AND NEAR MALOR EQUIPMENT. LOCATE MARKERS NAR VALVES, EACH DRAXET FACE OFF AND NEAR MALOR EQUIPMENT. LOCATE MARKENS NAR VALVES, EACH DRAXET FACE OFF AND NEAR MALOR EQUIPMENT. SOUTH AND SALE INTERVALS SHALL NOT EXCEED 50-01. LOCATE MARKENS NAR VALVES, EACH DRAXET FACE OFF AND NEAR MALOR EQUIPMENT. LOCATE MARKENS NAR VALVES, EACH DRAXET FACE OFF AND NEAR MALOR EQUIPMENT. LOCATE MARKENS NAR VALVES, EACH DRAXET FACE OFF AND NEAR MALOR EQUIPMENT. LOCATE MARKENS NAR VALVES, EACH DRAXET FACE OFF AND NEAR MALOR EQUIPMENT. LOCATE MARKENS NAR VALVES, EACH DRAXET FACE OFF AND NEAR MALOR EQUIPMENT. LOCATE MARKENS NAR VALVES, EACH DRAXET FACE OFF AND NEAR MALOR EQUIPMENT. LOCATE MARKENS NAR VALVES, EACH DRAXET FACE OFF AND NEAR MALOR EQUIPMENT. LOCATE MARKENS FACE NEERING. LOCATE	PLUMBING, AND COMMUNICATIONS SYSTEMS THAT PASS THROUGH A WALL, FLOOR, OR FLOOR/CEILING ASSEMBLY CONSTRUCTED AS A FIRE BARRIER SHALL BE PROTECTED BY A FIRESTOP SYSTEM OR DEVICE. THE FIRESTOP SYSTEM OR DEVICE SHALL BE TESTED IN ACCORDANCE WITH ASTM E 814 OR ANSI / UL 1479.	
BUILDING MAREADON MODEL SIGNAL TRACTOR SIGNAL TRACTOR SIGNA	. PROVIDE STENCILED PIPE MARKERS OR PLASTIC TAPE WITH COLOR COMPLYING WITH ANSI AI3.	
BURNER DIAGRAM	2. LOCATE MARKERS NEAR VALVES, EACH BRANCH TAKE OFF AND NEAR MAJOR EQUIPMENT.	FURTHER OF THE COST OF THE COS
COMPLETE DIAGRAM		
BIGNER DIAGRAM		
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CONTRACTOR SHALL PROVIDE HOLDRITE MALL HUNG PLATFORM MODEL #50-SWHP-M, INCLUDING HANGER RODS AND HARDWARE, 600 bi. LOAD RATING. COORDINATE INSTALLATION/BLOCKING WITH GENERAL CONTRACTOR. CONTRACT		
CONTRACTOR SHALL PROVIDE HOLDRITE WALL HUNG PLATFORM MODEL #50-SWHP-W INCLUDING HANGER RODS AND HARDWARE, GOE USE CHORER DIAGRAM		SIG SCH
CONNECT TO EXISTING 2" CMS PIPING IN EAST CHASE. REFER TO KEY PLAN FOR ADDITIONAL INFORMATION. CONTRACTOR SHALL PROVIDE HOLDRITE WALL HUNG PLATFORM MODEL #50-SWHP-W, INCLUDING HANGER RODS AND HARDWARE, SHOWER SHOWE		-
CONNECT TO EXISTING 2" CMS PIPING IN EAST CHASE. REFER TO KEY PLAN FOR ADDITIONAL INFORMATION. (0.8) SAFETY SHOWER SHOWER SHOWER OF USE SK 1/2" OF U	TENANT SHIT OFF	WE
CONNECT TO EXISTING 2" CMS PIPING IN EAST CHASE. REFER TO KEY PLAN FOR ADDITIONAL INFORMATION. CONTRACTOR SHALL PROVIDE HOLDRITE WALL HUNG PLATFORM MODEL #50-SWHP-W, INCLUDING HANGER RODS AND HARDWARE, 600 Ib. LOAD RATING. COORDINATE INSTALLATION/BLOCKING WITH GENERAL CONTRACTOR. SK JUL/2" OF USE SK JU		L PL
OF USE SK 1/2" OF USE SK 1/2" CONTRACTOR SHALL PROVIDE HOLDRITE WALL HUNG PLATFORM MODEL #50-SWHP-W, INCLUDING HANGER RODS AND HARDWARE, 600 Ib. LOAD RATING. COORDINATE INSTALLATION/BLOCKING WITH GENERAL CONTRACTOR. DWG NO.	(2.8) (2.8)	
SAFETY SHOWER SHALL PROVIDE HOLDRITE WALL HUNG PLATFORM MODEL #50-SWHP-W, INCLUDING HANGER RODS AND HARDWARE, 600 Ib. LOAD RATING. COORDINATE INSTALLATION/BLOCKING WITH GENERAL CONTRACTOR.	VALVE (2.8) (2.8) (2.8) (1.6) (1.6) (1.6) (1.6) (2.8) (2	
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IG RISER DIAGRAM	VALVE (2,8) (2,8) (2,8) (2,8) (2,8) (2,8) (2,8) (2,8) (2,8) (2,8) (2,8) (2,8) (2,8) (2,8) (2,8) (2,8) (2,8) (1,6) (1,6) (1,6) (1,6) (1,6) (1,6) (1,6) (1,6) (1,6) (1,6) (1,6) (1,6) (1,6) (1,6) (1,6) (1,6) (1,6) (1,7) (1,6) (1,6) (1,6) (1,7) (1,6) (1,6) (1,7) (1,6) (1,6) (1,7) (1,6) (1,7) (1,6) (1,7) (1	NOTED 3/2023 3CC 3LF
IG RISER DIAGRAM	VALVE (1,2) (2,3) (1,2) (1,2) (2,3) (1,2) (1	
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		LIGHTIN	G	FIXT	URE S	CHED	ULE	
				AMPS				
FIXTURE	MANUFACTURER	MODEL No.	No.	WATTS	VOLTAGE		MOUNTING	REMARKS
A	NOT USED							
B	METALUX	4W5L-LD2-45-UNV-L835-CD1-U	\sim	40	120		PENDANT	4-"MAVESTREAM" LED LINEAR 3500K, 4502 LUMENS
\bigtriangleup	LIGHTALARMS	QLXN500RN	I	з	120	LED	SURFACE	UNIVERSAL MOUNT, EXIT SIGN, WITH BATTERY BACKUP, RED LETTERS
	LIGHTALARMS	LCACR25QLEDR	2	I	120	LED	SURFACE	COMBO EXIT/EMERGENCY LTG, WITH REMOTE CAPABILITY
E	LIGHTALARMS	LCAB-2SQLED	2		120	LED	SURFACE	EMERGENCY LTG

	E	9	E	N	D
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Φ	SPECIFICATION GRADE DUPLEX RECEPTACLE
₽gFI	SPECIFICATION GRADE GROUND FAULT INTERRUPTER
₩	SPECIFICATION GRADE QUAD RECEPTACLE
₩∪⊨	SPECIFICATION GRADE UNDER FLOOR QUAD RECEPTACLE
JB	JUNCTION BOX
\$	SPECIFICATION GRADE SINGLE POLE SWITCH
\$₃	SPECIFICATION GRADE 3-WAY TOGGLE SWITCH
\$ _{vs}	WALL SWITCH VACANCY SENSOR
\$ _{₽s}	WALL SWITCH DIMMING VACANCY SENSOR
\bigotimes	LIGHTING FIXTURE (TYPE 'X' SEE SCHEDULE)
\bigcirc	MOTOR
	EMERGENCY FIXTURE
Θ	EXIT SIGN
Set	COMBINATION EXIT/EMERGENCY FIXTURE
—	PANEL
\bigwedge	AUDIBLE/VISUAL ALARM DEVICE
\bigotimes	VISUAL ALARM DEVICE
∇	TELEPHONE JACK
▼	DATA OUTLET
EF	EXHAUST FAN
(E)	EXISTING TO REMAIN UNLESS OTHERWISE NOTED
U⊨	UNDER FLOOR

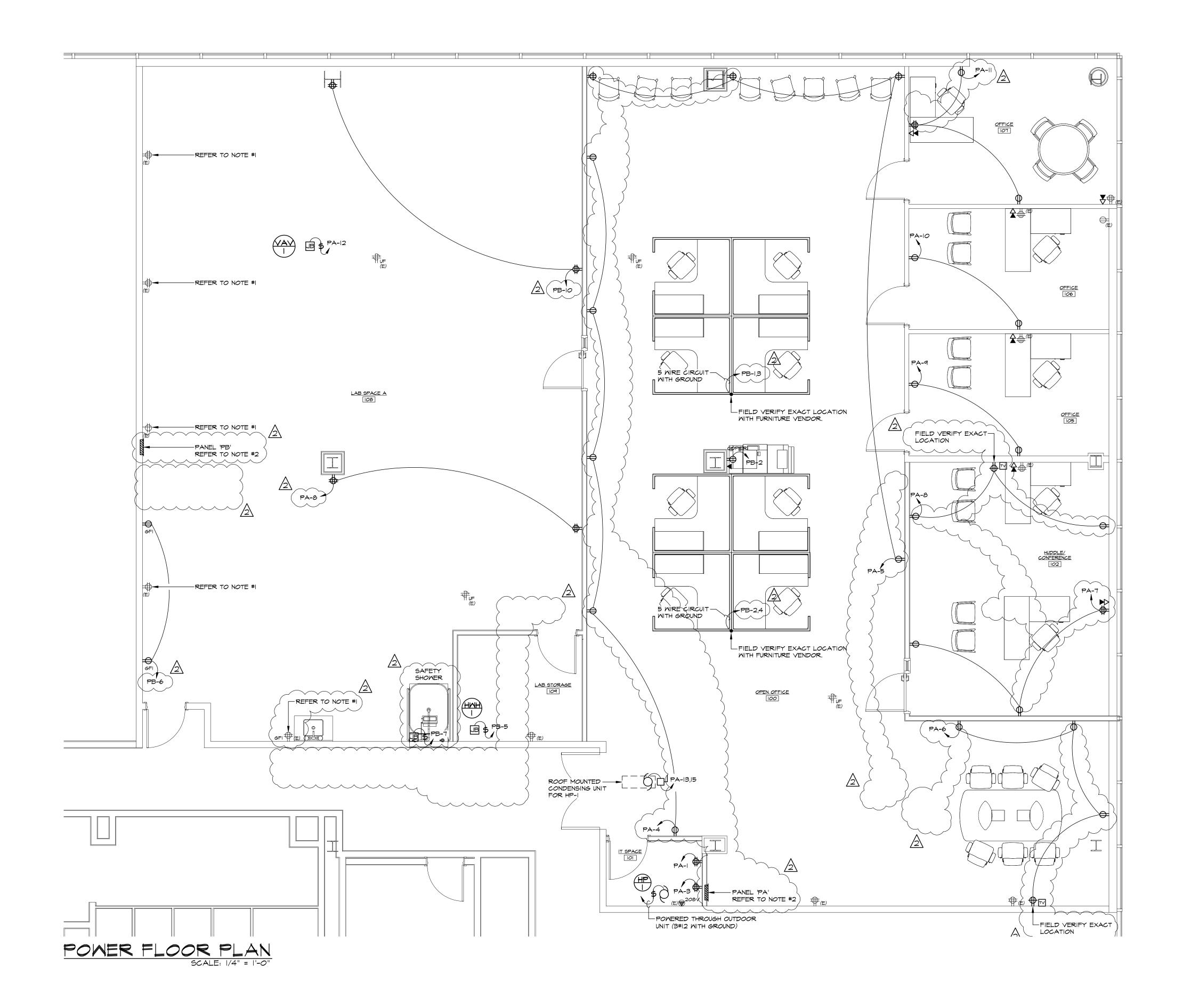
NOTES: I. CONNECT TO (E)2#12 WITH GROUND LIGHTING CIRCUIT SERVING THIS AREA.

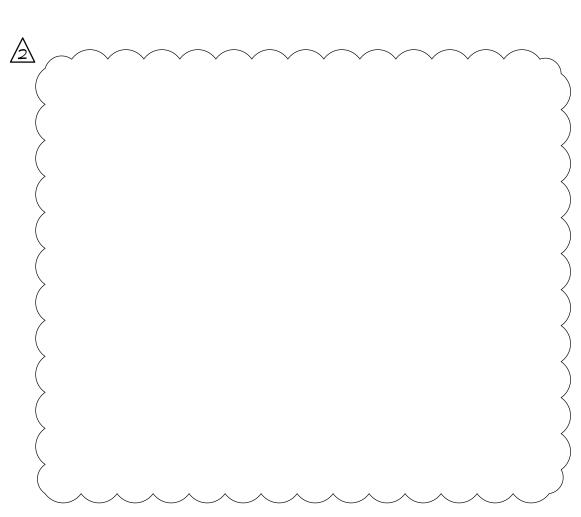
- EXISTING LIGHT FIXTURE TO BE DISCONNECTED FROM EXISTING SWITCHED LIGHTING CIRCUIT AND CONNECTED TO NEW LIGHTING CONTROL AS INDICATED. PROVIDE FOR CONTINUATION OF (E)2#12 WITH GROUND WIRING TO MAINTAIN EXISTING LIGHTING CIRCUIT UNINTERRUPTED.
 WIRING SHALL BE 2#12 WITH GROUND.
 ALL SPLICE SHALL BE MADE IN AN APPROVED, ACCESSIBLE JUNCTION BOX.
- 3. EXISTING LIGHT FIXTURE, CONTROL, WIRING AND ANCILLARY COMPONENTS TO BE COMPLETELY DEMOLISHED.
 PROPERLY TERMINATE CIRCUIT IN AN APPROVED, ACCESSIBLE JUNCTION BOX.
 PROVIDE BLANK COVER PLATE.

LIC	SHTING CONTROL SCHEDULE
\$ _{vs}	LEVITON WALL SWITCH PIR VACANCY SENSOR MODEL #ODSI5-IDX. CONTRACTOR SHALL BE

- RESPONSIBLE FOR CONFIGURING SENSOR TO OPERATE IN VACANCY MODE
- \$₽ LEVITON DIMMING WALL SWITCH PIR VACANCY SENSOR MODEL #ODDIO-IDX
- NOTES: I. CONTRACTOR SHALL PROVIDE ALL NECESSARY RELAYS, POWER PACKS, ETC. FOR A COMPLETE AND OPERATIONAL SYSTEM.
- 2. INSTALLATION SHALL BE IN STRICT COMPLIANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS.
- VACANCY SENSOR CONTROL LIGHTNING SHALL BE AUTOMATICALLY SHUT OFF WITHIN 20 MINUTES OF ALL OCCUPANTS LEAVING THE SPACE.

MPE CONSULTING AND DESIGN LLC	EXPRESSLY RESERVES ITS COMMON LAW COPYRIGHT AND OTHER PROPERTY RIGHTS IN THESE PLANS. ALL DRAWINGS, SPECIFICATION	AND COPIES THEREOF ARE AND SHALL REMANTHE PROPERTY OF MEE CONSULTING AND DESIGN LLC UNLESS THIS PLAN HAS	THE RAISED SEAL OF THE LICENSED PROFESSIONAL RESPONSIBLE FOR THE PI AN IT SHALL NOT BE CONSIDERED	AN AUTHORIZED DOCUMENT. THESE PLANS ARE NOT TO BE REPRODUCED, NOR ARE THEY TO RE ASSIGNED TO ANY THIRD	PARTY WITHOUT FIRST OBTAINING THE EXPRESSED WRITEN PERMISSION AND CONCETS OF LEVENDER TO AND SECONDARD	CONSENT OF MALE CONSOL FING AND DESIGN LLC
SUBMISSION	8/10/2023 - HEVIEW/COORDINATION 8/24/2023 - REVIEW/COORDINATION	9/5/2023 - BIDDING	🕂 9/21/2023 - ADDENDUM No. 1	🔬 1/10/2023 - VALUE ENGINEERING		
NJ PROFESSIONAL ENGINEER No. 24GE03895900 Pa professional Engineer no. Peo75142	DE PROFESSIONAL ENGINEER No. 17464 NY PROFESSIONAL ENGINEER No. 088381 MD PROFESSIONAL ENGINEER No. 088381 DE PROFESSIONAL ENGINEER No. 38281	CI PHOFESSIONAL ENGINEER NO. UUSID63 FL PROFESSIONAL ENGINEER No. 71354		Daniel A. Loveland Sr., P.E.		
	MPE Consulting and Design LLC	8225300	1035 N. Black Horse Pike, Suite 3 Williamstown, N.I. 08094	P. (856) 875-7001 modesian@modesian.com		
A A A A A A A A A A A A A A A A A A A		Elec Elec	<u>etri</u> S	Ca/		10000000000000000000000000000000000000
LIGHTING FLOOR PLAN	FOR	SIGNATURE SCIENCE		SITUATED AT	600 AVIATION RESEARCH BLVD.	EGG HARBOR TOWNSHIP, NJ 08234
SCALE SCALE SCALE	5 DATE. 9/5/2023	DRAWN BY.	PCC	CHECKED BY: DJF	APPROVED BY.	DAL SR.
DWG I	NO.	, , ,	••••••••••••••••••••••••••••••••••••••	9		





NOTES: I. CONTRACTOR SHALL REPLACE EXISTING RECEPTACLE WITH GFCI TYPE RECEPTACLE. 2. CONTRACTOR SHALL COMPLETELY DEMOLISH EXISTING 208V RECEPTACLE, COVER PLATE, BOX, AND ANCILLARY COMPONENTS. MAINTAIN EXISTING 3#6 WITH GROUND CIRCUIT TO SERVE NEW PANEL. MODIFY/EXTEND EXISTING 3#6 WITH GROUND CIRCUIT AS NEEDED AND MAKE CONNECTION TO NEW PANEL.
ALL SPLICES SHALL BE MADE IN AN APPROVED, ACCESSIBLE JUNCTION BOX.

• REFER TO ONE LINE DIAGRAM FOR ADDITIONAL INFORMATION AND INSTRUCTION. _____

SUBMISSION		8/24/2023 - REVIEW/COORDINATION	9/5/2023 - BIDDING AND COTTER PROPERTOR ANE CONSULTING AND STALL AND DESIGN LLC UNLESS THIS PLAN HAS	🔨 9/21/2023 - ADDENDUM No. 1	1/10/2023 - VALUE ENGINEERING		
NJ PROFESSIONAL ENGINEER No. 24GE03895900	PA PHOFESSIONAL ENGINEER NO. 750/5142 NY PROFESSIONAL ENGINEER NO. 77464 NY PROFESSIONAL ENGINEER NO. 088381	MD PROFESSIONAL ENGINEER No. 36281 CT PROFESSIONAL ENGINEER No. 0031633	FL PROFESSIONAL ENGINEER No. 71354		Daniel A. Loveland Sr., P.E.		DATE
	MDE Consulting and Design II C	ישבו וואוגיע שוש אוווואגווטט ע ווי	Certificate of Authorization No [.] 24GA28225300	1035 N. Black Horse Pike, Suite 3	Williamstown, NJ. Ud094 P. (866) 875-7001 P		
			Ð	Ő	578	2	
AND A PHILIPPIN		0000000	Ele		ica/		Active Cliff A
POWER FLOOR PLAN			Ele		ica/	_	34

PANEL No. (E)FPS			LOCA	TION	: 3RD		PA	NEL	No. PA			
FR/	٨ME	RATING: 250 AMP	MAIN B	3KR	. RAT	NG: 150 AMP PHASE: 3Ф, 4W				FR,	AME	RATING
DES	BCRI	PTION: EXISTING - SIEMENS FED WITH	4#I <i>/O</i> W/	GND	FROM	3 POLE, 150A CIRCUIT BREAKER				DES	SCR	IPTION:
SIZ	ZE						51	ZE		SI	ZE	
в	Μ	CIRCUIT DESCRIPTION	LOAD		LOA	CIRCUIT DESCRIPTION	в	M		в	M] '
20	12	(E)FVAV I FAN POWERED VAV DEV	700	1	2 667	(E)EXHAUST FAN 3-3	20	12		20	12	IT CLOSE
20	12	(E)FVAV 2 FAN POWERED VAV DEV	700	з 4	1334	(E)EXHAUST FAN 3-1, 3-2	20	12		20	12	IT CLOSE
20	12	(E)FVAV 3 FAN POWERED VAV DEV	700	56	>	SPACE				20	12	OPEN OF
20	12	(E)VAV-1, VAV-2, VAV-3 DEVICES	300	78	8 984	LIGHTS	20	12	*2	20	12	OFFICE R
20	12	(E)THUNDERBOLT REC	800	9 10	5 1598	LIGHTS	20	12	*2	20	12	OFFICE R
20	12	(E)THUNDERBOLT REC	800	11 1:	2	SPARE	20	12	*3	20	12	
20	12	(E)THUNDERBOLT REC	800	13 14	1 1600	(E)UNKNOWN	20	12		20	12	HP-I OUTI
20	12	(E)THUNDERBOLT REC	800	15 16	3	(E)SPACE				20	12	"
20	12	(E)THUNDERBOLT REC	800	17 18	3	(E)SPACE						SPACE
20	12	(E)THUNDERBOLT REC	800	192	0	(E)SPACE						SPACE
20	12	(E)THUNDERBOLT REC	800	212	2 7000	SUBPANEL "PA"	50	6	*			
-20	$\sqrt{2}$	(E)THUNDERBOLT REC	800	232	4		50	6				
		(E)SPACE		252	6 8200	SUBPANEL "PB"	50	6]*I < (
				272	8		50	6				
				293	o	(E)SPACE	<u> </u>	<u> </u>				
	\geq		<u> </u>	313	2				1 /			
				333	4							
				35 3	6							/
				373	8				$1 \rightarrow$			
				394	0				1 (_	
		The second secon		414	2				1 /			
		TOTAL CONNECTED LOAD (KW)	8.8	30.	1 21.3	TOTAL CONNECTED LOAD (KW)	1		1 \	r		тот,

ELECTRIC LOAD SUMMARY Δ

	RECEPTACLE LUAD		
\geq	TOTAL = 16.8 KW		
	IST IOK @ 100%	=	10.0 KM
\rangle	BALANCE 6.8 KW @ 50%	=	3.4 KM
	0THER @ 100%	=	13.3 KM

THER @	100%	=	13.3 KM
	TOTAL DEMAND	=	26.7 KM

26.7 KW X 1000/208V/1.73 = <u>74.1 AMPS</u> X 125% = 92.7 AMPS

Δ (

- <u>*NOTE:</u> REUSE EXISTING BRANCH CIRCUIT TO FEED NEW SUBPANEL AS INDICATED. REFER TO ELECTRICAL ONE LINE DIAGRAM FOR ADDITIONAL INFORMATION. • PROVIDE NEW TYPED PANEL DIRECTORY TO REFLECT AS-BUILT CONDITIONS. 2. EXISTING LIGHTING CIRCUIT TO BE REDED
- TO FEED NEW LIGHT FIXTURES AS INDICATED ON PLAN. 3. EXISTING LIGHTING CIRCUIT MADE OBSOLETE
 BY THE NEW WORK. TERMINATE CIRCUIT IN AN APPROVED JUNCTION BOX LOCATED IN THE
- TENANT SPACE.
- LABEL LABEL JUNCTION BOX AND PANEL SCHEDULE "SPARE".
- TURN CIRCUIT BREAKER TO THE "OFF" POSITION.

<u>/2</u>

 \sim

FRAME RATING: 100 AMPS MAIN BKR. RATING: MLO PHASE: 10 3W									
DES	SCR	PTION: SQ "D" CO., QO SERIES, W/GRD	BAR KI	ТА	ND	LOCKAE	BLE COVER SERIES RATED COMBINATIO	N PAN	NEL
SI	ZE	CIRCUIT DESCRIPTION	LOAD	p	۵	LOAD		51	ZE
В	Σ			Γ,	/F	LUAD	CIRCUIT DESCRIPTION		Y
20	12	CUBICAL POWER	1600	1	2	1600	CUBICAL POWER		12
20	12	"		з	4		["]	20	12
20	12	нмн-і	1500	5	6	360	LAB SPACE A RECEPTACLE	20	12
20	12	SAFETY SHOWER	0051	٦	8	720	LAB SPACE A RECEPTACLE	20	12
		SPACE		٩	0	720	LAB SPACE B RECEPTACLE	20	12
		SPACE			12		SPACE		
		SPACE		13	14		SPACE		
1		SPACE		15	9		SPACE		
		SPACE		17	18		SPACE		
		SPACE		19	20		SPACE		
			/	21	22				
			7	23	24				
				25	26				
				27	28				
				29	30				
				ЗI	32				
				33	34				
				35	36		/		
				37	38		1		
	_			39	40				
\checkmark				4	42				

ELECTRIC LOAD SUMMARY TOTAL CONNECTED = 8.2 KW

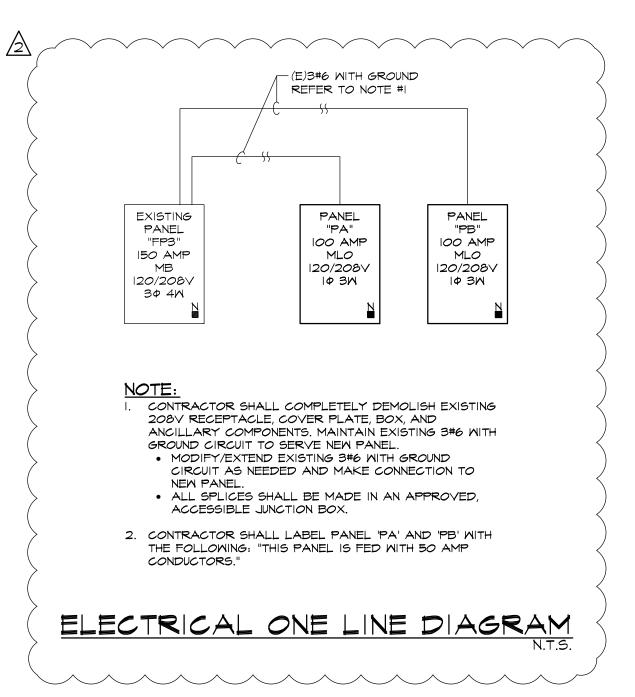
8.2 KW X 1000/208V = <u>39.4 AMPS</u> X 125% = 49.2 AMPS

IEL	LOCA	TIC	N:	OPEN C	OFFICE VOLTAGE: 120/2	VOLTAGE: 120/208V			
ME	RATING: 100 AMPS	MAIN I	ЗK	R.	RATIN	G: MLO РНАЅЕ : IФ ЗМ			
SCR	PTION: SQ "D" CO., QO SERIES, W/GRE) BAR KI	ΤA	ND	LOCKAE	BLE COVER SERIES RATED COMBINATIO	N PAN	1EL	
Έ							SI	ZE	
Ν	CIRCUIT DESCRIPTION	LOAD	P,	/P	LOAD	CIRCUIT DESCRIPTION	в	N	
12	IT CLOSET QUAD	360		2	180	COPIER	20	12	
12	IT CLOSET QUAD	360	з	4	900	OPEN OFFICE RECEPTACLE	20	12	
12	OPEN OFFICE RECEPTACLE	720	5	6	540	CONFERENCE ROOM RECEPTACLE	20	12	
12	OFFICE RECEPTACLE	720	٦	8	360	OFFICE RECEPTACLE	20	12	
12	OFFICE RECEPTACLE	360	٩	10	360	OFFICE RECEPTACLE	20	12	
12	OFFICE RECEPTACLE	540	11	12	180	VAV #I CONTROLLER			
12	HP-I OUTDOOR UNIT	1440	IЗ	14		SPACE			
12			15	16		SPACE			
	SPACE		17	18		SPACE			
	SPACE		19	20		SPACE			
			21	22				_	
		-	23	24					
			25	26					
			27	28					
			29	30					
			31	32					
			33	34					
			35	36		/			
	-		37	38		1			
-			39	40	/				
			41	42					
	TOTAL CONNECTED LOAD (KW)	4.5	7	.0	2.5	TOTAL CONNECTED LOAD (KW)	-	•	

ELECTRIC LOAD SUMMARY

TOTAL CONNECTED = 7.0 KW

7.0 KW X 1000/208V = <u>33.6 AMPS</u> X 125% = 42.0 AMPS



		<u>electrical ge</u>	<u>ENERAL NOTES</u>	DESIGN LLC DESIGN LLC BEERVES FRIGHT AND FECEFICATION FECEFICATION E CONSULTING E LICENSES FIE LICENSES ANY THIRD CONSIDERED THES PLANS FIE AND ANY THIRD O ANY THIRD O ANY THIRD O ANY THIRD O ANY THIRD O DESIGN LLC
INDICATED	TOR SHALL PROVIDE ALL POWER, LIGH ON THESE DOCUMENTS AND AS OTHER E AND OPERATIONAL SYSTEMS AS INTE	TING, FIRE PROTECTION, ETC. AS WISE REQUIRED TO SATISFY	MIRING METHOD I. WIRING METHOD SHALL BE TYPE MC UNLESS OTHERWISE NOTED. - OUTDOOR EXPOSED - IMC - OUTDOOR CONNECTION TO VIBRATING EQUIPMENT - LIQUIDTIGHT FLEXIBLE	SULTING AND D SSLY REE ION LAW COPYI DRANTY RIGHTS DRANTY RIGHTS THEREOF ARE THEREOF ARE ILLC UNLESS THE ILLC UNLESS THE ILLC UNLESS THE ILLC UNLESS THE DE RECROBUT THE DE RECROBUT THE NURTTEN PERMONUT NURTTEN PERMONUT
2. CONTRAC CONFLICT IMMEDIATE	TOR SHALL COORDINATE ALL WORK WI AND TO FACILITATE THE WORK WITHOU ELY REPORT ANY DISCREPANCIES, IN M AND/OR ALTERATIONS REQUIRE REVIEW	TH OTHER TRADES TO AVOID IT CAUSING UNNECESSARY DELAYS. IRITING, TO THE ENGINEER. ALL	 CONNECTION INDOOR EXPOSED - EMT INDOOR CONNECTION TO VIBRATING EQUIPMENT - FLEXIBLE METAL CONDUIT 2. UNLESS OTHERWISE NOTED NO WIRE SHALL BE SMALLER THAN #12 AWG. EXCEPT CONTROL AND SIGNAL CIRCUITS MAY BE RUN WITH #14 AWG. NO CONDUIT SHALL BE 	MPE CONS EXPRESS DITS COMM OTTS COMM OTTS COMM OTTS COMM OTTS PLANE PHI AND DESIGE PROFESSION PLAN, IT SI ARE NOT OT ARE NOT OT CONSENT OF
PERFORM	SN PROFESSIONALS, CONSULTANTS, CON ING WORK ON THIS PROJECT SHALL BE ANCE OF THEIR WORK, COORDINATION	FULLY RESPONSIBLE FOR THE PROPER	 3. HOME RUN CIRCUITS MORE THAN 15 FEET FROM THE PANEL BOARD SHALL BE MADE WITH #10 AWG. OR LARGER AS REQUIRED TO LIMIT VOLTAGE DROP TO 2% MAXIMUM. 	SOORDINATION COORDINATION COORDINATION COORDINATION E ENGINEERING
TRADESPE MPE CONS RESPONSI AND INDET	EOPLE, MEANS AND METHODS OF CONS SULTING AND DESIGN LLC INCLUDING ITS	TRUCTION, JOB SAFETY AND SECURITY. 5 AGENTS AND EMPLOYEES ARE NOT ABOVE AND SHALL BE HELD HARMLESS _AIMS, LOSSES, SUITS, AND LEGAL	 ALL CONDUCTORS SHALL BE XHHW-2 COPPER W/90°C INSULATION OR GREATER. FIRE ALARM CABLE SHALL BE FPLP - SHIELDED, PLENUM RATED, POWER-LIMITING. 	
TO ASSUR DISCREPA	TOR SHALL EXAMINE EXISTING ELECTRI E SAFETY AND SUITABILITY FOR CONTI INCIES OR DEFICIENCIES TO THE OWNER S OFFICE BEFORE PROCEEDING WITH T	NUED USE. IMMEDIATELY REPORT ANY R, GENERAL CONTRACTOR AND	 DEMOLITION I. CONTRACTOR IS RESPONSIBLE FOR SELECTIVE DEMOLITION IN ALL AREAS AS REQUIRED TO ACCOMMODATE THE PROJECT SCOPE OF WORK. ALL SYSTEMS AND ANCILLARY COMPONENTS MADE OBSOLETE SHALL BE COMPLETELY REMOVED AND DISPOSED. INSTALL BY-PASS WHERE REQUIRED TO MAINTAIN THE INTEGRITY OF OVERALL SYSTEMS 	submission: 8/10/2023 - REVIEW 8/24/2023 - REVIEV 9/5/2023 - BIDDING 9/21/2023 - AD
DIMENSION FABRICAT ALL OTHE	TOR SHALL PROVIDE FOR FIELD VERIF NS AND CONDITIONS PRIOR TO MATERI, "ION. THIS CONTRACTOR SHALL BE RES R TRADES INVOLVED. PROVIDE FOR A IN CONDUIT AS NEEDED TO AVOID CON	AL PROCUREMENT AND/OR PONSIBLE FOR COORDINATION WITH LL FIELD MODIFICATIONS SUCH AS	REMAINING AND SERVING AREAS OUTSIDE THE SCOPE OF WORK AREA. 2. CONTRACTOR SHALL PERFORM A SITE INSPECTION TO ESTABLISH EXTENT OF DEMOLITION PRIOR TO BID. ELECTRICAL EQUIPMENT IDENTIFICATION	P.E.
OBSTRUCT	IONS AND/OR INTERFERENCES THAT MA AWINGS. NO ADDITIONAL COST TO THE	AY AFFECT THE LAYOUT INDICATED ON	 INSTALL ENGRAVED PLASTIC LAMINATE SIGN ON EACH MAJOR ITEM OF ELECTRICAL EQUIPMENT INDICATING THE EQUIPMENT'S DESIGNATION AND AREA/SUITE SERVED. ALL SWITCHBOARDS, SWITCHGEAR, AND PANELBOARDS SUPPLIED BY FEEDER(S) SHALL 	8868000 142 83 83 83 83
COMPLETE 5. THE CONT	RACTOR IS RESPONSIBLE FOR ALL MA E AND WORKING SYSTEM WHETHER SPEC RACTOR SHALL SECURE ALL PERMITS (CIFIED OR IMPLIED.	BE PERMANENTLY MARKED TO INDICATE EACH DEVICE OR EQUIPMENT WHERE THE POWER ORIGINATED. THE LABEL SHALL BE PERMANENTLY AFFIXED, OF SUFFICIENT DURABILITY TO WITHSTAND THE ENVIRONMENT INVOLVED, AND NOT HANDWRITTEN.	No. 24GE03 R No. 746075 R No. 17E075 R No. 36281 R No. 36281 R No. 71354 R No. 71354
6. CONTRAC SPECIFICA TO DO SO	REQUIRED. TOR SHALL REVIEW AND BECOME FAMI ATIONS IN THE BID DOCUMENTS AND WO SHALL NOT RELIEVE THE CONTRACTOR	RK PERFORMED BY OTHERS. FAILURE R FROM PROVIDING COMPLETE AND	BOXES AND DEVICES I. ALL DEVICES SHALL BE 20 AMP UNLESS OTHERWISE NOTED. 2. RECEPTACLE AND SWITCH PLATES SHALL BE METAL.	L ENGINEER AL ENGINEER AL ENGINEER AL ENGINEER AL ENGINEER AL ENGINEER AL ENGINEER AL ENGINEER AL ENGINEER
	NAL SYSTEMS IN ACCORDANCE WITH P TOR TO CONFIRM EXACT LOCATION OF AGENTS.		 PROVIDE ACCESSIBLE SPLICE/JUNCTION BOXES AS NEEDED. PROVIDE NEW TYPED PANEL DIRECTORY TO REFLECT AS BUILT CONDITIONS. 	OFESSIONA OFESSIONA OFESSION OFESSION OFESSION OFESSION
	TOR TO MAKE ALL ELECTRICAL CONNE	CTIONS TO EQUIPMENT SUPPLIED BY	 FROVIDE NEW TIPED FANEL DIRECTORY TO REFLECT AS BUILT CONDITIONS. MOUNTING HEIGHTS ARE AS FOLLOWS UNLESS OTHERWISE NOTED: LIGHT SWITCHES 	NJ PROFESS PA PROFESS PE PROFESS ND PROFESS CT PROFESS FL PROFESS FL PROFESS FL PROFESS DATE.
CONDITION	CALE THIS DRAWING FOR EXACT DIMENNS, DIMENSIONS, ETC. AT THE JOB SITE.		<u>LIGHT SMITCHES</u> OPERABLE PARTS SHALL BE LOCATED NO HIGHER THAN 48" ABOVE FINISHED FLOOR IF THE REACH IS OVER AN OBSTRUCTION BETWEEN 20" AND 25" IN DEPTH THE MAXIMUM HEIGHT SHALL BE 44".	
SAME BRA AND CONN	CH CIRCUITS FEEDING THE EMERGENCY ANCH CIRCUIT AS THAT SERVING THE NO NECTED AHEAD OF ANY SWITCHES. E EXISTING CIRCUITS AS REQUIRED.	FIXTURES SHALL ORIGINATE FROM THE DRMAL LIGHTING IN THE SAME AREA	MALL RECEPTACLES OPERABLE PARTS SHALL BE LOCATED NO LOWER THAN 15" ABOVE FINISHED FLOOR.	
12. CONTRAC	TOR IS RESPONSIBLE FOR THE COMPLE TURES INSTALLED IN SUSPENDED CEILIN TO FROM BUILDING STRUCTURE.		<u>COUNTERTOP RECEPTACLES</u> OPERABLE PARTS SHALL BE LOCATED NO HIGHER THAN 48" ABOVE FINISHED FLOOR IF THE REACH IS OVER AN OBSTRUCTION BETWEEN 20" AND 25" IN DEPTH THE MAXIMUM HEIGHT SHALL BE 44".	and D No. 246
14. LOCATION PANELS A			RECEPTACLES/DATA (UNDER DESK) COORDINATE WITH ARCHITECT NO LOWER THAN 15" ABOVE FINISHED FLOOR. PHONE JACKS	Consulting a te of Authorization Black Horse Pik stown, NJ. 08094 875-7001 gn@mpedesign.com
HE SHALL WORK AS	TOR IS NOT TO SCALE DRAWINGS OR A VISIT THE SITE TO DETERMINE THE TOT DIAGRAMMED ON THE PLANS. EXTRA (NITH THE ABOVE STATEMENTS WILL NOT	COMPENSATION FOR FAILURE TO	OPERABLE PARTS SHALL BE LOCATED NO HIGHER THAN 48" ABOVE FINISHED FLOOR. IF THE REACH IS OVER AN OBSTRUCTION BETWEEN 20" AND 25" IN DEPTH THE MAXIMUM HEIGHT SHALL BE 44".	
AND/OR IN	TOR SHALL REFER TO ALL DRAWINGS IN INSTRUCTIONS RELATIVE TO THE PROJECT	CT SCOPE OF WORK.	<u>CRT JACKS</u> OPERABLE PARTS SHALL BE LOCATED NO HIGHER THAN 48" ABOVE FINISHED FLOOR. IF THE REACH IS OVER AN OBSTRUCTION BETWEEN 20" AND 25" IN DEPTH THE MAXIMUM HEIGHT SHALL BE 44".	Certific Certific P. (856 mpede
AND ARCH	RACTOR SHALL COORDINATE ALL MOR HITECTURAL DESIGN DRAWINGS. IMMEDI IGINEERS OFFICE.		EMERGENCY LIGHTS 96" ABOVE FINISHED FLOOR OR 6" BELOW FINISHED CEILING WHICHEVER IS	
I. ALL ELEC COMPLIAN	<u>D STANDARDS</u> TRICAL WORK SHALL BE PERFORMED E ICE WITH THE 2020 NATIONAL ELECTRIC TERNATIONAL BUILDING CODE, NFPA 12		LOWER. <u>EXIT SIGNS</u> 96" ABOVE FINISHED FLOOR OR 6" BELOW FINISHED CEILING WHICHEVER IS LOWER.	
,	ND ALL OTHER REGULATIONS GOVERNIN MES, STANDARDS OF QUALITY /		<u>FIRE ALARM HORN/STROBES</u> 80" ABOVE FINISHED FLOOR OR 6" BELOW FINISHED CEILING WHICHEVER IS LOWER.	
BIDDERS I	WITH THE TYPES OF MATERIALS/EQUIPM	HESE DOCUMENTS ARE TO ACQUAINT THE 1ENT DESIRED AND WILL BE USED AS A =ERED AS EQUIVALENT WILL BE EVALUATED.	FIRESTOP I. PENETRATIONS FOR CABLES, CABLETRAYS, CONDUITS, PIPES, TUBES, COMBUSTION VENTS, AND EXHAUST VENTS, WIRES, AND SIMILAR ITEMS TO ACCOMMODATE ELECTRICAL.	
FUNCTION BEING REC RESPONSI	RUESTED. WHERE BIDDER SUBMITS AN E BILITY OF THE BIDDER TO DOCUMENT T	DESIRED FOR THE MATERIAL/EQUIPMENT	MECHANICAL, PLUMBING, AND COMMUNICATIONS SYSTEMS THAT PASS THROUGH A WALL, FLOOR, OR FLOOR/CEILING ASSEMBLY CONSTRUCTED AS A FIRE BARRIER SHALL BE PROTECTED BY A FIRESTOP SYSTEM OR DEVICE. THE FIRESTOP SYSTEM OR DEVICE SHALL BE TESTED IN ACCORDANCE WITH ASTM E 814 OR ANSI / UL 1479.	
	SUBMISSION OF BID.	BE APPROVED IN WRITING BY ENGINEER		ល
EQUIPMENT SUBMITTAL • LIGH • FIRE	NUFACTURES LITERATURE TO ENGINEER MEETS REQUIREMENTS OF THESE DRA S SHALL INCLUDE BUT NOT BE LIMITED ITING FIXTURES E ALARM SYSTEM	WINGS AND SPECIFICATIONS.		SCHEDULE ENCE BLVD. J 08234
	ITING CONTROLS ICES AND COVER PLATES			
				L NOTES A FOR IATURE S SITUATED AT VIATION RESEA
F IF	RE ALARM EQUI	PMENT SCHEDULE		AL NO iNATU iNATU aviatio
SYMBOL	DESCRIPTION	REMARKS		TRICAL SIGN
\odot	VISUAL NOTIFICATION DEVICE	PROVIDE DEVICE COMPATIBLE WITH EXISTI FIRE ALARM SYSTEM		ELEC
NOTES:	AUDIBLE VISUAL NOTIFICATION DEVICE	PROVIDE DEVICE COMPATIBLE WITH EXISTI FIRE ALARM SYSTEM	ING	ш П
I. ALL WORK CODES \$,	ALL OTHER REGULATIONS GOVERNING A	TERIAL & LABOR TO SATISFY A COMPLETE		
3. THE CONTR AS REQUIR		DR APPLICATIONS & PAY ANY & ALL FEES		
DETECTION	RACTOR SHALL MAKE ALL ELECTRICAL N/SIGNALIZATION SYSTEM.			NOTED 5/2023 KAP DJF AL SR.
INSTALLAT STOPPING	E ALL OPENINGS IN WALLS, FLOORS AND TON OF THE FIRE DETECTION/SIGNALIZA COMPOUNDS. FOR SHALL VERIFY EXACT QUANTITIES	ATION SYSTEM WITH U.L. LISTED FIRE		SCALE: AS NC DATE: 9/5/2 DRAWN BY: KA CHECKED BY: APPROVED BY: DAL
FIRE ALAR	RM PANEL SYSTEM AS REQUIRED TO INC			∞ <u>a</u> a a a a dwg No.
	FOR SHALL PROVIDE SHOP DRAWINGS, TIONS, AND SUBMITTALS AS REQUIRED E	BATTERY CALCULATIONS, VOLTAGE DROP BY LOCAL CODE OFFICE.		E3
				9 o⊧ 9

